FOURTH FIVE-YEAR REVIEW REPORT FOR HI-MILL MANUFACTURING COMPANY HIGHLAND TOWNSHIP OAKLAND COUNTY, MICHIGAN

Prepared by:

U.S. Environmental Protection Agency
Region 5
Chicago, Illinois

2015

Approved by:

Date:

for Richard C. Karl, Director
Superfund Division

9/25/2015

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Hi-Mill Manufacturing Company
Oakland County, Michigan
Fourth Five-Year Review Report

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List of Acronyms

bgs	Below Ground Surface
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminants of Concern
DRC	Declaration of Restrictive Covenant
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
FYR	Five-Year Review
Hi-Mill	Hi-Mill Manufacturing Company
ICAIP	Institutional Control and Implementation Plan
ICs	Institutional Controls
LTS	Long-term Stewardship
MDEQ	Michigan Department of Environmental Quality
MDNRE	Michigan Department of Natural Resources and Environment
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PRP	Potentially Responsible Party
RA	Remedial Action
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SDS	Subsurface Depressurization System
Site	Hi-Mill Manufacturing Company Site
TCE	Trichloroethene
Township	Highland Township
ug/L	Micrograms Per Liter
UU/UE	Unlimited Use and Unrestricted Exposure
VOC	Volatile Organic Compound

Executive Summary

This is the fourth five-year review (FYR) for the Hi-Mill Manufacturing Company Superfund Site (Hi-Mill or the Site) located in Oakland County, Michigan. The purpose of this FYR is to review information to determine if the remedy is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on September 27, 2010.

The Site is an active industrial site located in Highland Township (Township), Oakland County, Michigan, and encompasses 4.5 acres. Hi-Mill began manufacturing tubular aluminum, brass, copper tubing, and other parts in 1946. The Township, which is a suburb of Detroit, has a population of over 19,000 people. Approximately 2,800 of the residents are served by community water supplies, and the remainder use private wells for their drinking water. In 1989, an on-site production well, used for both plant processes and drinking water, was constructed to replace the two original production wells contaminated with volatile organic compounds (VOCs). This production well was properly abandoned and is no longer in use. Contaminants of concern (COCs) at the Hi-Mill Site are VOCs in groundwater.

Hi-Mill was listed on the National Priorities List (NPL) on February 21, 1990. A Remedial Investigation/Feasibility Study (RI/FS) was completed for the Site from September 1988 through September 1993.

In 1993, the United States Environmental Protection Agency (EPA) signed the Record of Decision (ROD) for Hi-Mill, which called for long-term monitoring of groundwater in the shallow and intermediate aquifers and implementation of institutional controls (ICs) to restrict development of the property for residential use. The Michigan Department of Environmental Quality (MDEQ) did not concur with the ROD. Deed restrictions on the property are in place; however, the Site property has changed ownership following the owner's death in 2009. Based on the Site inspection and communication with the current property owners, no inappropriate land or groundwater use was observed and the objectives of the deed restrictions appear to be met.

Groundwater monitoring was conducted through 2010. More recent data regarding the quality of the groundwater is needed. Updating the groundwater monitoring program is planned with re-initiation of the monitoring program. Since the ROD was signed in 1993, four new community wells have been installed in Highland Township. Two wells are approximately 3,000 feet west of the Site, and the other two are approximately 4,000 feet north of the Site. These wells are screened in lower aquifers than the contamination detected at Hi-Mill. However, the deep and intermediate aquifers combine when interbedded layers of silt and clay disappear to the west. Therefore, there is a possible pathway for groundwater to move deeper as it flows west toward the municipal wells west of the Site, and additional groundwater monitoring is needed to determine the potential for the municipal wells to be impacted.

The remedy at Hi-Mill currently protects human health and the environment because actions taken to date prevent current exposures. Based on the Site inspection, monitoring data, and communication with the new property owners and their contractors, no inappropriate land or groundwater uses have been observed. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the deed restrictions for the Site. However, in order for the remedy to be protective in the long term, the following actions need to be taken: the groundwater monitoring well network needs to be evaluated and updated as appropriate; a revised groundwater sampling regimen needs to be implemented which includes sampling of the more recent intermediate monitoring wells to better assess off-site groundwater conditions at the Site; a revised Declaration of Restrictive Covenant (DRC) should be developed and recorded, consistent with current State of Michigan requirements; the need for additional ICs at the Site should be evaluated and long-term stewardship (LTS) procedures developed through an LTS Plan; and an Institutional Control and Implementation Plan (ICAIP) should be developed to ensure that effective ICs are implemented, monitored, maintained, and enforced.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Hi-Mill Manufacturing Company		
EPA ID: MID005341714		
Region: 5	**State:** MI	**City/County:** Highland Township/Oakland County
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	**Has the site achieved construction completion?** Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name (Federal or State Project Manager): Linda A. Kern		
Author affiliation: EPA, Region 5		
Review period: 11/30/2014 – 9/25/2015		
Date of site inspection: 6/24/2015		
Type of review: Statutory		
Review number: 4		
Triggering action date: 9/27/2010		
Due date *(five years after triggering action date)*: 9/27/2015		

Five-Year Review Summary Form (continued)

Issues/Recommendations

Issues and Recommendations Identified in the Five-Year Review:

OU(s): 01/Sitewide	**Issue Category: Monitoring**			
	Issue: Groundwater, including the intermediate aquifer, requires sampling to assess current groundwater conditions at the Site.			
	Recommendation: Evaluate and update groundwater monitoring program, and include the intermediate aquifer monitoring wells in the M-59 Highway median west of the Site in the monitoring program. Restart the long-term groundwater monitoring program and complete groundwater sampling and analysis.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	11/30/2015

OU(s): 01/Sitewide	**Issue Category: Monitoring**			
	Issue: Contaminated groundwater from the Site could impact the Wellhead Protection Area for two community wells west of the Site.			
	Recommendation: Determine whether additional sampling needs to be performed within the Wellhead Protection Area and conduct sampling if needed. This area could potentially intersect the Site groundwater contamination plume.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	4/30/2016

OU(s): 01/Sitewide	**Issue Category: Institutional Controls**			
	Issue: IC requirements need to be evaluated; additional ICs may be needed.			
	Recommendation: Develop an ICAIP and implement any necessary additional ICs.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	2/28/2016

OU(s): 01/Sitewide	Issue Category: Institutional Controls			
	Issue: LTS procedures are lacking.			
	Recommendation: Develop an LTS Plan (or incorporate LTS procedures into the Operation and Maintenance (O&M) Plan) and implement LTS procedures to ensure that effective ICs are implemented, monitored, maintained, and enforced to ensure long-term protectiveness.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	2/28/2016

OU(s): 01/Sitewide	Issue Category: Changed Site Conditions			
	Issue: The Agencies need to determine whether additional follow-up activities are needed to address the vapor intrusion pathway for on-site workers.			
	Recommendation: Review the design specifications of the newly-installed vapor mitigation system (Subsurface Depressurization System) in the on-site structures to determine whether additional follow-up activities are needed. Include a routine check of the system as part of Site O&M activities.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	5/30/2016

OU(s): 01/Sitewide	Issue Category: Operations and Maintenance			
	Issue: The integrity of some of the groundwater monitoring wells appears to be compromised.			
	Recommendation: Evaluate all groundwater monitoring wells to determine which wells need to be retained, re-developed, or formally abandoned per State regulations. Evaluate whether new monitoring wells should be installed.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	11/30/2015

OU(s): 01/Sitewide	Issue Category: Institutional Controls			
	Issue: The deed restrictions are not reflective of current property owners.			
	Recommendation: Draft and record a new DRC that is consistent with current State of Michigan requirements.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA/State	1/31/2016

OU1/Sitewide Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement: The remedy at Hi-Mill currently protects human health and the environment because actions taken to date prevent current exposures. Based on the Site inspection, monitoring data, and communication with the new property owners and their contractors, no inappropriate land or groundwater uses have been observed. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the deed restrictions for the Site. However, in order for the remedy to be protective in the long term, the following actions need to be taken: the groundwater monitoring well network needs to be evaluated and updated as appropriate; a revised groundwater sampling regimen needs to be implemented which includes sampling of the more recent intermediate monitoring wells to better assess off-site groundwater conditions at the Site; a revised DRC should be developed and recorded, consistent with current State of Michigan requirements; the need for additional ICs at the Site should be evaluated and LTS procedures developed through an LTS Plan; and an ICAIP should be developed to ensure that effective ICs are implemented, monitored, maintained, and enforced.

Five Year Review Report

Hi-Mill Manufacturing Company
Oakland County, Michigan

I. INTRODUCTION

The purpose of a FYR is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and recommendations to address them.

EPA prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA Section 121 states:

> *"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the result of all such reviews, and any actions taken as a result of such reviews."*

EPA interpreted this requirement further in the NCP at 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii) which states:

> *"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action."*

EPA conducted a FYR on the remedy implemented at the Hi-Mill Manufacturing Company Superfund Site in Highland Township, Oakland County, Michigan. EPA is the lead agency for developing and implementing the remedy for the Site. MDEQ, as the support agency representing the State of Michigan, has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the fourth FYR for the Hi-Mill Manufacturing Company Superfund Site. The triggering action for this statutory review is the completion date of the previous FYR. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site above

levels that allow for unlimited use and unrestricted exposure (UU/UE). The Site consists of one Operable Unit (OU), which is addressed in this FYR. Background information about the site is provided in Appendix A.

II. PROGRESS SINCE THE LAST FIVE-YEAR REVIEW

Table 1 – Protectiveness Determinations/Statements from the 2010 FYR

OU	Protectiveness Determination	Protectiveness Statement
01/ Sitewide	Short-term protective	The assessment of this five-year review for the Hi-Mill Manufacturing Company Site found that the remedy is protective of human health and the environment in the short term. Based on the site inspection, monitoring data and communication with O&M personnel, no inappropriate land or groundwater use was observed. USEPA is not aware of site or media uses which are inconsistent with the stated objectives of the ICs for the Site. Groundwater monitoring will continue so that USEPA and MDNRE can be sure that the remedy remains protective of human health and the environment. There are some issues that impact long-term protectiveness at the Site. The groundwater monitoring program needs to be revisited and a revised sampling regimen implemented that includes the newer intermediate monitoring wells. There also remains a concern for the potential that contaminated groundwater emanating from the Site may intersect with the Wellhead Protection Area for the two community wells west of the Site in the future. As a precautionary measure, sampling of the community wells should also be performed to confirm that the Wellhead Protection Area is not impacted by the Site. In addition, long-term protectiveness at the Site requires continued compliance with use restrictions to assure that the remedy continues to function as intended. To assure proper maintenance, monitoring, and enforcement of effective ICs, long-term stewardship procedures will be reviewed and a plan developed. This plan will include a provision for regular inspection of ICs at the Site and annual certification to USEPA that the ICs are in place and effective. The institutional controls for the Site should be consistent with model restrictive covenant language. Finally, to ensure that future construction workers are protected from off-site groundwater migration into areas near Highway M-59, the adequacy of the remedy and the ICs for the Site should be re-evaluated to determine if additional response is needed.

Table 2 – Status of Recommendations from 2010 FYR

OU	Issues	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date
01/ Site-wide	The intermediate aquifer requires additional sampling to better assess current groundwater conditions at the Site.	The groundwater monitoring program for the Site needs to be revisited and a revised sampling regimen implemented. The regimen should include the newly-constructed intermediate monitoring wells at the Site.	PRP	EPA/ State	December 2010	Ongoing	Not completed

OU	Issues	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date
01/ Site-wide	There remains a concern for the potential that contaminated groundwater from the Site could impact the Wellhead Protection Area for two community wells west of the Site.	Sampling of the community well(s) within the Wellhead Protection Area that potentially intersects the Site groundwater contamination plume needs to be conducted.	PRP	EPA/ State	December 2010	Ongoing	Not completed
01/ Site-wide	To ensure the ICs remain effective, IC requirements need to be evaluated and an IC Plan developed. The IC Plan should take into consideration potential construction along State Highway M-59 and impacts to future workers.	An IC evaluation for the Site needs to be completed. An IC Plan needs to be developed documenting IC activities and planning corrective measures needed to ensure long-term protectiveness.	PRP	EPA/ State	March 2011	Ongoing	Not completed
01/ Site-wide	The Agencies need to determine whether any additional follow-up activities are needed to address the vapor intrusion pathway for on-site workers.	Evaluate whether any additional follow-up activities are needed, beyond the indoor air sampling conducted by CRA in 2005, to address the vapor intrusion pathway.	EPA	State	March 2011	Raves Construction, Inc. installed a vapor mitigation system within the warehouse and office spaces that are occupied by on-site workers.	5/30/2015

Recommendations 1 and 2: With the death of the previous Potentially Responsible Party (PRP), a mechanism for performing additional groundwater sampling was not available. EPA conducted a civil investigation to identify any additional responsible party to perform the remaining O&M activities at the Site. No other entity was identified to perform the O&M activities. Subsequently, EPA has assumed responsibility to perform the groundwater sampling and analysis to ensure

continued protection of the remedial action. Groundwater sampling will be completed by November 2015.

Recommendation 3: EPA, in coordination with MDEQ, will work with the new property owners in the development of a new DRC to be recorded for the Site.

Recommendation 4: In order to support reuse of the Site, the property was sold at County Auction in 2014. The new property owners proactively installed a vapor mitigation system (a.k.a. Subsurface Depressurization System (SDS)) within the warehouse and office at the Site. The system is meant to protect on-site workers from potential vapor intrusion pathways at the Site. As a follow-up to this review, the vapor mitigation system will be further evaluated. Monitoring of this system will be included in the O&M activities at the Site.

Remedy Implementation Activities

A federal Consent Decree (CD) for completion of the Remedial Design/Remedial Action (RD/RA) was entered in December 1994. Both parties to the CD (the former owners of Hi-Mill, Robert and Richard Beard) are now deceased, the last owner/operator having passed away in 2009. During 2011 and 2012, EPA performed a civil investigation in an attempt to identify any additional responsible parties to continue groundwater monitoring and O&M activities at the Site. No viable PRPs were identified. EPA also evaluated whether a removal action could be implemented at the Site to remove the existing source of contamination that would impact the remaining O&M activities. It was determined that the levels of contamination did not support a removal action at the time. EPA has tasked an environmental contractor to perform groundwater sampling and analysis and evaluate current groundwater conditions at the Site.

During 2013 thru 2014, the property status changed. The State of Michigan was originally interested in obtaining the property to be included as part of the State Recreation Area. The County subsequently auctioned the property in 2014. The property is now under new ownership.

The current owners (1704 Highland Properties, LLC) are aware of existing use restrictions (discussed in the following section) recorded on the property. The new owners intend to operate the property as a dry storage warehouse; a small wood shop, and a small office. They are working to improve the property, within the limitations of the deed restrictions. The onsite well is not being used as a potable source of water, as the new owners use bottled water as a drinking water source. A Phase I Environmental Site Assessment was completed by Applied Environmental for 1704 Highland Properties, LLC. In October 2014, Applied Environmental submitted a Baseline Environmental Assessment to MDEQ. Subsequently, the new owners' contractors developed a Due Care Plan for the Site in order to put the property into reuse, while remaining protective of their employees.

As part of this process, the new owners installed an SDS to address potential concerns regarding vapor intrusion within the newly-occupied office and warehouse structures. EPA will review the design specifications of the installed system and evaluate whether any additional response actions need to be taken to ensure protectiveness.

Institutional Controls

ICs are non-engineered instruments, such as administrative and legal controls, designed to minimize the potential for human exposure to contamination and protect the integrity of the remedy. ICs are required for any areas which do not allow for UU/UE. One component of the selected remedy for the Site was to implement ICs "to restrict development of the Hi-Mill property for residential use." These restrictions were placed on the property deed in December 1994. These restrictions run with the land and are imposed on current and future owners of the Site.

The recorded document (a copy of which is provided in Appendix B) contains the following language:

> *The following restrictions are imposed upon the Site, its present and any future owners, their authorized agents, assigns, employees or persons acting under their direction or control, for the purposes of protecting public health or welfare and the environment, preventing interference with the performance, and the maintenance, of any response actions selected and/or undertaken by the United States Environmental Protection Agency (USEPA), or any party acting as agent for USEPA, pursuant to Section 104 of...CERCLA. Specifically, the following deed restrictions shall apply to the Site as provided for in paragraph nine (9) of the Consent Decree:*
>
> > *1. There shall be no consumptive or other use of the shallow groundwater unit underlying the Site that could cause exposure of humans or animals to the shallow groundwater unit underlying the Site;*
> >
> > *2. There shall be no residential or agricultural use of the Site, including, but not limited to, any installation of drinking water production wells in the shallow groundwater unit, except as approved by USEPA. Further, there shall be no excavation beneath the paved parking areas at the Site;*
> >
> > *3. There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by USEPA, or any party acting as agent for USEPA, and which is selected and/or undertaken by USEPA pursuant to Section 104 of CERCLA; and*
> >
> > *4. There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by USEPA, pursuant to Section 104 of CERCLA, except with written approval of USEPA, and consistent with all statutory and regulatory requirements.*

The recorded restrictions also state:

> *The above use restrictions are intended for the protection of public health and the environment and may therefore be enforced by the USEPA or the State of Michigan.*

The obligation to implement and maintain the above restrictions shall run with the land and shall remain in effect permanently, unless and until such time as USEPA determines there is no longer contamination on the Site.

Status of ICs and Follow-up Actions Required: The following table identifies those areas that do not support UU/UE at the Site. A map showing the areas in which the ICs apply is included in Appendix B.

Table 3 – Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
On-site soils and groundwater	Yes	Yes	See map in Appendix B	Restrict residential development and use of groundwater	Deed Restriction recorded at the Oakland County Recorder's Office on December 22, 1994
Off-site groundwater (area exceeding groundwater cleanup standards)	Yes	No	See map in Appendix B	N/A	Under review. No restrictions for off-site areas were required by the ROD; the need for such restrictions is currently under review for areas such as the M-59 median.

As stated earlier, the original owners of the property are deceased, and the property is now under new ownership. The current owners are aware of existing use restrictions recorded on the property.

The State of Michigan now has a model DRC and guidance for placing ICs on property. While the existing deed restrictions run with the land, they should be updated to reflect new property ownership as well as addressing the possible off-site groundwater contamination migration issue. EPA will work in coordination with MDEQ and the new land owners to develop and implement a DRC to replace the existing deed restrictions for the Site.

Currently, there are no use restrictions required beyond the property boundaries. The groundwater contamination plume extends off site beyond the property boundaries. This area is being evaluated as part of the development of new ICs for the Site. There is also a concern that the potential exists for exposure to workers during possible installation of a municipal sewer

system that could run below ground surface (bgs) along Highway M-59. Although the shoulder of the highway where the sewer lines may be installed is at a higher elevation than the median, the depth to the groundwater contamination in the location of the median is fairly close to the typical depth at which interceptor sewers are constructed. This could introduce exposure pathways to off-site workers that were not evaluated as part of the Site's risk assessment.

As a result, the need for ICs for the area of the off-Site groundwater plume needs to be evaluated, and ICs implemented, if needed. In addition, since there is no decision document requiring such ICs, should they be needed, a decision document would need to be completed adding such ICs as a component of the Site remedy. Long-term stewardship procedures are also lacking.

EPA and MDEQ will develop an ICAIP. The purpose of the ICAIP is to conduct IC evaluation activities to ensure that effective ICs are implemented, maintained, monitored, and enforced.

Long-term protectiveness requires continued compliance with the land and groundwater use restrictions to ensure the remedy continues to function as intended. Long-term stewardship will ensure that the ICs are maintained, monitored, and enforced. Plans incorporating LTS procedures (e.g., an LTS Plan or O&M Plan) should include the mechanisms and procedures for inspecting and monitoring compliance with the ICs as well as communications procedures. An annual report should be submitted to EPA to demonstrate the following: that the Site was inspected to ensure inconsistent uses have not occurred; that ICs remain in place and are effective; and that any necessary contingency actions have been executed. Results of IC reviews should be provided to EPA in an annual ICs report, with a certification that the ICs are in place and effective. IC evaluation activities will also include, as needed, updating maps to depict current conditions in areas that do not allow for UU/UE, and ensuring that prior-in-time encumbrances do not exist on the Site that are inconsistent with the ICs.

Current Compliance: Based on the Site inspection and communication with the current property owners, no inappropriate land or groundwater use was observed. The deed restriction recorded in December 1994 is currently in place and is being observed by the new property owners. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the ICs and cleanup goals. The on-site well is not being used for potable water.

Long-Term Stewardship: Since compliance with ICs is necessary to ensure the protectiveness of the remedy, planning for LTS is required to ensure that ICs are maintained, monitored, and enforced. LTS involves ensuring effective procedures are in place to properly maintain and monitor the Site. As part of the IC follow-up actions, EPA and MDEQ will develop an LTS Plan (or update the O&M Plan) that includes procedures for LTS.

System Operation/Operation and Maintenance Activities

The original signatories to the CD for long-term O&M, including long-term groundwater monitoring, are deceased. Subsequently, a lapse in O&M and groundwater monitoring occurred. In order to ensure the remedy remains protective, EPA will temporarily assume responsibility for performing groundwater monitoring, prior to a new O&M Plan being developed for the Site. EPA expects to conduct groundwater sampling and analysis by the fall of 2015 to ensure the existing remedy remains protective and evaluate if any additional actions are needed at the Site.

Originally, the monitoring program for Hi-Mill included quarterly monitoring of 16 wells in the shallow aquifer and seven wells in the intermediate aquifer. Groundwater samples were analyzed for VOCs only. In July 2000, EPA approved a reduced monitoring program for the Site. The reduced monitoring program required that all wells be sampled on an annual basis, with selected shallow wells sampled semi-annually and two shallow wells sampled quarterly.

As a result of this FYR, the need for a revised monitoring program for the Site has been identified and will be discussed in more detail later in this FYR report. Discussions have taken place between EPA and MDEQ to implement a fund-lead monitoring program for the Site to ensure continued protection. During the June 2015 site inspection, EPA observed that some groundwater monitoring wells appear to have been compromised and are in poor condition. EPA will task a hydrogeologist to formally evaluate the condition of the wells. Subsequently, EPA will task a contractor to perform groundwater sampling and analysis at the Site.

III. FIVE-YEAR REVIEW PROCESS

Administrative Components
The Hi-Mill Manufacturing Superfund Site FYR was led by Linda Kern, EPA Remedial Project Manager (RPM), with assistance provided by the MDEQ Project Manager, Autumn Lawson, and the MDEQ Senior Geologist, Charles Graff. Cheryl Allen, EPA Community Involvement Coordinator, provided community outreach support. The FYR consisted of a review of relevant Site documents, discussions with MDEQ and representatives of the new property owners, and a Site inspection to evaluate current Site conditions.

The review, which began on November 30, 2014, consisted of the following components:

- Community Notification and Involvement;
- Document Review;
- Data Review;
- Site Inspection;
- Interviews; and
- Five-Year Review Report Development and Review.

Community Notification and Involvement
Activities to involve the community in the FYR were initiated with a public notice prepared by EPA and placed in The Oakland Press on August 5, 2015 announcing that a FYR was to be performed for the Site. The notice provided members of the public with general Site information, references to EPA's website, the location of the Site information repository, names and contact information for the Site, and an opportunity to request additional information from EPA. No public comments and no inquiries from the public were received. Community interviews were not conducted due to low community interest. A copy of the public notice is included in Appendix C.

Notice of the completed FYR will be placed in The Oakland Press and the FYR report will be made available for public review at the Highland Township Library located at 205 West Livingston Street, Highland Township.

Document Review
This FYR consisted of a review of relevant site-specific documents including the RI, Risk Assessment, ROD, investigatory reports, correspondence, O&M records, Oakland County Consumer Confidence Reports, and cumulative site-specific monitoring data.

Information in the September 2014 Phase I Environmental Site Assessment and October 2014 Baseline Environmental Assessment was reviewed as part of this evaluation. These documents were prepared by Applied Environmental, contractor for the new property owners.

Data Review
Trichloroethene (TCE) is the main COC at Hi-Mill. Since O&M began, TCE has been detected in on-site shallow monitoring well SW-1 at a concentration of up to 240,000 micrograms per liter (ug/L). During Phase I of the RI, conducted from 1989 to 1990, the highest level of TCE in on-site groundwater was 1,100 ug/L. During Phase II of the RI in 1992, the highest level of TCE found on-site was 6,700 ug/L. The most recent data collected at SW-1 ranged from 220,000 ug/L in October 2009 to 92,000 ug/L in July 2010. SW-1 is located on site, on the outside of the western end of the former facility warehouse. Figure 1 in Appendix E summarizes the 14-year groundwater analytical data and illustrates the monitoring well locations.

Shallow monitoring well SW-24 was installed in spring 2008 downgradient from SW-1 to monitor potential contaminant movement. The analytical results presented in the Fourteen-Year Evaluation Report (August 2008 – July 2009), submitted by CRA in February 2010, indicate that shallow groundwater contamination remains evident in the immediate area of the Site building and northwest of the buildings beneath highway M-59. Concentrations of TCE in SW-24 were reported at levels ranging from 9,900 to 19,000 ug/L. The drinking water maximum contaminant level for TCE is 5 ug/L.

In the Fifteen-Year Evaluation Report (August 2009 – July 2010), submitted by CRA in May 2011, concentrations of TCE in SW-24 were reported at levels ranging from 3,500 to 6,100 ug/L. During one sampling event, the area was flooded and could not be sampled.

In order to more adequately monitor potential groundwater migration, additional intermediate aquifer monitoring wells (IW-10, IW-11, and IW-12) and a replacement shallow monitoring well (SW-27R) were installed in June 2008. The design of each well was based on the stratigraphic and vertical aquifer sampling results work performed at the Site. Analytical results obtained in summer 2008 from IW-10, IW-11, and IW-12 revealed one trace detection of TCE at a concentration of 0.29J ug/L (estimated value) in IW-12. The duplicate groundwater sample collected from that location did not confirm the trace detection of TCE. Since these newer wells (IW-10, IW-11, and IW-12) have been sampled only once since their installation, future sampling of these wells is recommended. This data will provide additional information about the condition of the groundwater, particularly the intermediate aquifer, and will help monitor the long-term protectiveness of the remedy.

Based on the FYR site inspection, it is evident that the condition of several monitoring wells have been compromised. Prior to conducting future groundwater sampling and analysis, it is necessary to perform a comprehensive review of the monitoring well network integrity. EPA, in coordination with MDEQ, will perform a hydrogeological evaluation of the existing monitoring wells at the Site during the fall of 2015. The evaluation will assess the condition of the wells to determine whether new wells need to be installed and whether any compromised wells need to be abandoned in accordance with State of Michigan regulations. Upon completion of this evaluation, EPA will implement a revised groundwater monitoring regimen at the Site to ensure long-term protectiveness of the remedy. Upon receipt of the groundwater sampling results, EPA, in coordination with MDEQ, will evaluate whether any additional actions need to be taken at the Site.

Since the ROD was completed in 1993, four community wells have been installed in the Township. Two wells are approximately 3,000 feet west of the Site and the other two are approximately 4,000 feet north of the Site. The Wellhead Protection Areas for the Highland Valley wells are west and north of the Site. The western community wells are downgradient from the western flow of groundwater at the Site (see Figure 2 in Appendix E which illustrates the Wellhead Protection Areas in Highland Township in proximity to Hi-Mill). EPA sampled the community wells in 2006 and found they were not impacted by the Site. The intermediate wells at Hi-Mill are screened at intervals of 28-33 feet, 48-53 feet, and 63-68 feet bgs. The municipal wells are screened from approximately 200 to 240 feet bgs in the deep aquifer. The deep and intermediate aquifers combine when interbedded layers of silt and clay disappear to the west. Given this geology, there is a possible pathway for groundwater to move deeper as it flows west toward the municipal wells. Available results obtained in summer 2008 for the three intermediate Hi-Mill monitoring wells (IW-10, IW-11, and IW-12) did not indicate they were impacted by Site-related contaminants. Due to the lack of more recent data, additional data collection from the Site's intermediate wells is recommended. In addition, EPA will evaluate whether additional sampling within the wellhead protection areas should be performed.

Following their purchase of the former Hi-Mill Manufacturing property, the new owners retained an environmental contractor, Applied Environmental, to perform a Phase I Environmental Site Assessment (ESA) at the Site. This ESA reviewed existing site documentation and recommended that a Phase II ESA be completed to determine the absence/presence of subsurface soil and/or groundwater contamination associated with the historic use of the property. As a result of the ESA, the new property owner installed an SDS system to alleviate potential exposure risks to occupants of Site structures.

A Phase II subsurface investigation was conducted in September 2014. The environmental assessment consisted of advancing 9 geoprobe borings at various locations inside the building and 3 geoprobe borings along the southwest exterior of the building. A total of 12 soils samples and 4 groundwater samples were submitted to an independent testing laboratory for chemical analysis. The investigation was not intended or designed to fully characterize the nature, extent, and distribution of all potential chemical impacts to soil and/or groundwater at the Site. Rather, the investigation was intended to determine the absence or presence of contamination associated with the recognized environmental concerns identified in the Phase I ESA.

Based on the results of the previous assessments indicating the presence of TCE and its breakdown products in soil and groundwater, Applied Environmental conducted sub-slab soil gas sampling in late 2014 to evaluate the need for a vapor mitigation system. As a precautionary measure, it was recommended that a vapor mitigation system be installed prior to building occupation. The SDS at the Site was installed during 2014 into 2015. The SDS consists of sub-surface piping to collect potential vapors from under the existing structures. The piping is covered by Vaporblock Plus with an overlaying layer of 3.5 to 4 inches of new concrete. Vaporblock Plus is a multi-layered product made from polyethylene and resins which provide resistance to gas and moisture transmission. The Vaporblock acts as an under-slab vapor/gas barrier to restrict potential vapor intrusion from migrating through the ground and concrete slab. The vapors are transmitted via piping throughout the occupied areas of the warehouse and office areas and vented out through piping on the facility's roof.

EPA will review the design specifications of the installed SDS and evaluate whether any additional response actions are needed to ensure protectiveness.

Site Inspection

The FYR Site inspection was conducted on June 24, 2015. The inspection was performed by Linda Kern, EPA RPM, Autumn Lawson, MDEQ Project Manager, and Charles Graff, MDEQ Senior Geologist. Representatives of 1704 Highland Properties, LLC (Robert Sowles, Ramiz Sheena, Joe Hutson, and Mike Gatien) also participated in the inspection.

The purpose of the inspection was to evaluate current Site conditions and assess the protectiveness of the remedy. EPA and MDEQ conducted a visual inspection of the grounds and the groundwater monitoring wells. Agency personnel were also provided with a tour of the former Hi-Mill warehouse and associated office space.

The following conditions were noted:

- There are several monitoring wells whose condition was determined to be compromised or questionable. Photographs of these wells are included in the Site Inspection Report;
- The new property owners have made significant improvements to the warehouse and office structures at the Site;
- With the presence of the new property owners, security at the Site has increased;
- The new property owners have installed an SDS, addressing the potential for vapor intrusion within the Site structures;
- The new property owners are interested in continuing to make improvements to the property, within the limitations of use restrictions at the Site; and
- Dark-stained soils were evident outside the back door on the southeast side of the warehouse, and a dark-stained curbed concrete area was also observed inside that door to the north next to the former location of a TCE tank.

A copy of the June 24, 2015 Site Inspection Report (along with Site photographs) is included in Appendix D.

Interviews
During the site inspection, EPA and MDEQ representatives discussed the current conditions of the Site with the new property owners and their representatives, Robert Sowles, Ramiz Sheena, Joe Hutson, and Mike Gatien.

The new owners accompanied EPA and MDEQ during the site inspection and provided an on-site tour of the warehouse and office facilities. The Site's deed restrictions were discussed, as well as the new owners' future plans for the Site.

No community interviews were conducted during the FYR due to low community interest at the Site. However, EPA and MDEQ project staff are available in the event of future inquiries.

IV. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

Yes. The review of Site documentation and groundwater data collected through 2010 and the results of the Site inspection indicate the remedy is providing adequate protection of public health and the environment. Additional data is needed to fully evaluate the long-term protectiveness of the Site remedy. The Site property changed ownership following the death of the last property owner in 2009. As a result, groundwater monitoring and O&M ceased in 2010. In addition, there are several monitoring wells whose conditions are either compromised or questionable that should be addressed. The groundwater monitoring program needs to be updated to include monitoring of the intermediate aquifer due to the potential for the plume to impact the community wells located west and downgradient of the Site. The groundwater monitoring program needs to be restarted to assess the current quality of the groundwater and extent of the plume.

Based on a review of the existing Site ICs and discussions with the new property owners, there appears to be compliance with the stated objectives of the 1994 deed restrictions currently in place at the Site. However, there are no use restrictions required beyond the property boundaries, and the groundwater contaminant plume may extend off site beyond the property boundaries. It is unclear whether there are any controls in place, such as governmental controls, preventing use of the off-site groundwater. Also, there is a concern related to the potential for future installation of a municipal sewer system that would run bgs along Highway M-59. This could introduce exposure pathways to off-site workers that were not evaluated during the Site's risk assessment. As a result, the need for ICs for the area of the off-Site groundwater plume needs to be evaluated and implemented, if needed. In addition, if ICs for the groundwater beyond the property boundaries are needed, a decision document would need to be completed adding such ICs as a component of the Site remedy.

EPA and MDEQ will develop an ICAIP. The purpose of the ICAIP is to conduct IC evaluation activities to ensure that effective ICs are implemented, maintained, monitored, and enforced. An LTS Plan will also be developed.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?

Yes. The exposure assumptions, toxicity data, and remedial action objectives used at the time of the remedy selection appear to be valid and addressed by the cleanup. However, there is a concern regarding the potential for future installation of a municipal sewer system that would run bgs along Highway M-59. Although the shoulder of the highway, where the sewer lines may be installed, is at a higher elevation than the median, the depth to the groundwater contamination in the location of the median is fairly close to the typical depth at which interceptor sewers are constructed. This could introduce exposure pathways to off-site workers that were not evaluated during the Site's risk assessment.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. No other information has come to light that could call into question the protectiveness of the remedy.

Technical Assessment Summary

Since the previous FYR was completed, there have been a number of changes at the Site. The original signatories to the CD who were responsible for long-term O&M and groundwater monitoring are deceased, with the last owner passing away in 2009. Subsequently, a lapse in O&M and groundwater monitoring occurred. As previously discussed, questions have been raised regarding not only the current groundwater quality, but also regarding the extent of the contaminant plume off site and whether the community wells may be impacted. In order to ensure that the remedy remains protective in the future, EPA will perform groundwater monitoring. It is expected that groundwater sampling and analysis will take place by the fall of 2015. The groundwater monitoring program will be performed to ensure continued protection of the existing remedy and evaluate if any additional actions are needed at the Site.

EPA will work in coordination with MDEQ to implement a DRC for the Site that is consistent with current State requirements. EPA and MDEQ will also develop an ICAIP. The purpose of the ICAIP is to conduct IC evaluation activities to ensure that effective ICs are implemented, maintained, monitored, and enforced.

V. ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 4 – Issues and Recommendations/Follow-up Actions

OU(s): 01/Sitewide	**Issue Category: Monitoring**			
	Issue: Groundwater, including the intermediate aquifer, requires sampling to assess current groundwater conditions at the Site.			
	Recommendation: Evaluate and update groundwater monitoring program, and include the intermediate aquifer monitoring wells in the M-59 Highway median west of the Site in the monitoring program. Restart the long-term groundwater monitoring program and complete groundwater sampling and analysis.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	11/30/2015

OU(s): 01/Sitewide	**Issue Category: Monitoring**			
	Issue: Contaminated groundwater from the Site could impact the Wellhead Protection Area for two community wells west of the Site.			
	Recommendation: Determine whether additional sampling needs to be performed within the Wellhead Protection Area and conduct sampling if needed. This area could potentially intersect the Site groundwater contamination plume.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	4/30/2016

OU(s): 01/Sitewide	**Issue Category: Institutional Controls**			
	Issue: IC requirements need to be evaluated; additional ICs may be needed.			
	Recommendation: Develop an ICAIP and implement any necessary additional ICs.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	2/28/2016

OU(s): 01/Sitewide	**Issue Category: Institutional Controls**			
	Issue: LTS procedures are lacking.			
	Recommendation: Develop an LTS Plan (or incorporate LTS procedures into the O&M Plan) and implement LTS procedures to ensure that effective ICs are implemented, monitored, maintained, and enforced to ensure long-term protectiveness.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	2/28/2016

OU(s): 01/Sitewide	Issue Category: Changed Site Conditions			
	Issue: The Agencies need to determine whether additional follow-up activities are needed to address the vapor intrusion pathway for on-site workers.			
	Recommendation: Review the design specifications of the newly-installed vapor mitigation system (Subsurface Depressurization System) in the on-site structures to determine whether additional follow-up activities are needed. Include a routine check of the system as part of Site O&M activities.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	5/30/2016

OU(s): 01/Sitewide	Issue Category: Operations and Maintenance			
	Issue: The integrity of some of the groundwater monitoring wells appears to be compromised.			
	Recommendation: Evaluate all groundwater monitoring wells to determine which wells need to be retained, re-developed, or formally abandoned per State regulations. Evaluate whether new monitoring wells should be installed.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	11/30/2015

OU(s): 01/Sitewide	Issue Category: Institutional Controls			
	Issue: The deed restrictions are not reflective of current property owners.			
	Recommendation: Draft and record a new DRC that is consistent with current State of Michigan requirements.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA/State	1/31/2016

VI. PROTECTIVENESS STATEMENT

OU1/Sitewide Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement: The remedy at Hi-Mill currently protects human health and the environment because actions taken to date prevent current exposures. Based on the Site inspection, monitoring data, and communication with the new property owners and their contractors, no inappropriate land or groundwater uses have been observed. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the deed restrictions for the Site. However, in order for the remedy to be protective in the long term, the following actions need to be taken: the groundwater monitoring well network needs to be evaluated and updated as appropriate; a revised groundwater sampling regimen needs to be implemented which includes sampling of the more recent intermediate monitoring wells to better assess off-site groundwater conditions at the Site; a revised DRC should be developed and recorded, consistent with current State of Michigan requirements; the need for additional ICs at the Site should be evaluated and LTS procedures developed through an LTS Plan; and an ICAIP should be developed to ensure that effective ICs are implemented, monitored, maintained, and enforced.

VII. NEXT REVIEW

The next FYR for the Site will be completed within five years from the signature date of this review.

Appendix A
Existing Site Information

A. SITE CHRONOLOGY

Table A-1 – Chronology of Site Events

Date	Event
1946	Hi-Mill Manufacturing Company began operation
1977	Michigan Department of Natural Resources (MDNR) issued National Pollutant Discharge Elimination System (NPDES) permit for discharges; EPA did not concur with the permit
Between 1978 and 1980 (exact date unknown)	Underground delivery line for trichloroethene (TCE) ruptured
1983	After obtaining approval from MDNR, Hi-Mill excavated sludge from larger lagoon and backfilled it with clean fill
1988	Oakland County Health Department (OCHD) found volatile organic compounds (VOCs) in on-site well used for drinking and process water
June 24, 1988	Site proposed to National Priorities List (NPL)
September 23, 1988	Administrative Order on Consent for remedial investigation/feasibility study (RI/FS) entered
February 21, 1990	Final NPL Listing
June 26, 1990	Removal Assessment conducted and No Remedial Action Planned (NRAP) decision made
September 1988 to September 1993	RI/FS completed
September 17, 1993	Michigan Department of Environmental Quality (MDEQ) issued letter stating non-concurrence with Record of Decision (ROD)
September 28, 1993	ROD issued by EPA
December 7, 1994	Consent Decree (CD) for remedial design/remedial action (RD/RA) entered
March 30, 1995	Preliminary Close-Out Report (PCOR) signed
June 28, 1995	RD completed
June 28, 1995	Start of on-site RA
May 17, 1996	Operation and Maintenance (O&M) began
August 25, 2000	First Five-Year Review completed
August 2000	Hi-Mill voluntarily performed a soil gas survey to define areas in which to inject oxidizing agent
July 2001	Voluntary action conducted involving injection of an oxidizing agent into shallow aquifer
September 29, 2005	Second Five-Year Review completed
September 27, 2010	Third Five-Year Review completed
June 24, 2015	Fourth Five-Year Review Site Inspection conducted

B. BACKGROUND

Physical Characteristics

The Hi-Mill Manufacturing Company Superfund Site is located at 1704 Highland Road in Highland Township, Oakland County, Michigan (see Figures 3 and 4 of Appendix E). The Site is approximately 4.5 acres in size. Highland Road is the local name for the section of State Highway M-59 that runs through Highland Township.

The one-mile stretch of State Highway M-59 on which the Hi-Mill Site is located is not developed. Highway M-59 demarcates the northwestern border of the Site; the other three sides of the property are adjacent to the Highland State Recreation Area. Another small portion of land across the highway from Hi-Mill is also part of the State Recreation Area. Private homes, located about 2,000 feet to the southeast, are the closest residences to the Site.

Target Pond, a marshy area approximately 10 acres in size, borders the Site to the east, and Waterbury Lake lies about 1,000 feet to the south. Waterbury Lake is 35 to 40 acres in size. Both the lake and the pond are part of the Highland State Recreation Area. A culvert in a section of Target Pond close to the north parking lot of the Hi-Mill facility may direct drainage and surface water run-off from the Site. A septic field located near the former lagoon area adjacent to the east side of the plant drains into Target Pond. Alderman Lake, which is 1,000 feet northwest of the Site, receives drainage from the storm sewer located in the M-59 median. None of these areas – Target Pond, Waterbury Lake, Alderman Lake, or the Highland State Recreation Area – are considered to be environmentally sensitive.

Historical studies have indicated three aquifers are present in the area of the Site. A silty clay and clay unit appears to separate the shallow and intermediate aquifers in the immediate vicinity of the Site. However, contamination previously found in the former onsite production wells, which were screened in the intermediate aquifer, indicates the two aquifers are hydraulically connected. Although a clay unit is also known to exist between the intermediate and deep aquifers, the layer thins out southeast of the Site and these two lower aquifers also become hydraulically connected. The hydrogeologic data collected during the RI indicated that groundwater in the shallow aquifer flowed out radially from the Site, but monitoring data from recent years indicate that the contamination in the shallow aquifer is migrating toward the west. Generally, flow in the intermediate aquifer is to the west, and flow in the deep aquifer is to the southwest. The closest community wells, screened in the deep aquifer, are 3,000 feet west of the Site.

Land and Resource Use

Highland Township is a charter township of west Oakland County in the State of Michigan. The population was 19,202 at the 2010 Census. The Township is located approximately 30 miles northwest of Detroit. The Township covers approximately 36 square miles, of which slightly over 6 percent is comprised of lakes and other surface water bodies. Nearly one-fourth of the land in Highland Township is owned by the State of Michigan as part of the Highland State Recreation Area.

The land at the Site is currently zoned industrial and is surrounded on three sides by the State Recreation Area. It is anticipated that the land at the Site will continue to be used as an industrial parcel.

The risk assessment for Hi-Mill evaluated a number of different future land use scenarios. The pathways of greatest concern were listed as inhalation of, ingestion of, or direct contact with water from the shallow groundwater unit. Excess lifetime cancer risks were determined to be 4×10^{-3} for adults and 3×10^{-4} for children. The hazard index for future on-site adult residents ingesting or having direct contact with shallow groundwater was calculated to be 37. The hazard index for future on-site child residents based on ingesting shallow groundwater was calculated to be 20. At the time the risk assessment for Hi-Mill was prepared, a future residential scenario and use of groundwater for drinking were not considered to be likely. Also, because the closest private drinking water wells were not in the direction of groundwater flow, this pathway was not evaluated as part of the risk assessment.

For the foreseeable future, it is likely that Hi-Mill will continue to be used for industrial purposes. Although increased development in the Township may not mean the zoning of the Site will immediately change, the potential exists for future development to result in the installation of underground sewer lines along the Highway M-59 corridor, which runs adjacent to the Site. The potential exists for future drilling of additional community wells, which may result in an increased pumping and drawdown of existing community wells.

The rates of development in nearby communities, such as White Lake Township, Hartland Township, and Waterford, have thus far been greater than in Highland, due, in part, to their existing municipal infrastructure (e.g., sanitary sewers and central water systems). Between 1990 and 2000, the township to the west of Highland experienced a 60 percent increase in population. Lack of a centralized municipal sewer system causes the Township to be subject to a number of limits on development density that Oakland County imposes on areas with parcel-by-parcel sewage disposal.

Since 1994, five new community wells have been constructed in the Township. These were the first community wells installed since the late 1970s. The four pre-existing community wells that were installed in 1973 and 1978 are located at a significant distance from the Site. In 1994, a new well was constructed three-quarters of a mile north of the facility. The water from this well, however, contained high iron and was taken out of operation. In 1996, a pair of community wells (Huntwood Place Wells #1 and #2) were installed in the deep aquifer, at a depth of approximately 175 feet, 4,000 feet northeast of the Hi-Mill Site.

Two additional community wells, referred to as Highland Valley Wells #1 and #2, were installed in 1998. These two wells, screened in the deep aquifer at a depth of approximately 240 feet, are located 3,000 feet to the west of the Site and are of greater concern than the Huntwood Wells because groundwater in the intermediate aquifer flows to the west.

History of Contamination

The former Hi-Mill Manufacturing Company began operating at its current location in 1946. Hi-Mill began using TCE at the plant in 1951. Since it was established, aluminum, brass, and copper tubing parts and fittings, mainly for the refrigeration industry, were manufactured at Hi-Mill. Raw materials were first machined and cut, followed by the shaping and soldering of the tubing forms to form the final product. As of 1992, all soldering operations used silver solder or aluminum bar brazing. However, tin-lead solder may have been used in prior operations. Anodizing or "pickling" was done to brighten the parts. Manufacturing processes included the use of nitric and sulfuric acid for brightening solutions, chromic acid for parts washing, caustic soda for neutralizing non-recycled process waters, and chlorinated solvents for degreasing.

Before shipping completed tubing components, the parts were degreased by placing them in mesh containers and immersing the containers into TCE degreasing units. The parts were placed under heat lamps to remove any residual solvent. Any solvents volatilizing from the heating process or the degreasing unit were vented to the outside air. The chlorinated solvents used to degrease the fabricated parts are the source of contamination in on-site and off-site groundwater. Currently, these chlorinated VOCs, and in particular TCE, are the primary contaminants of concern at the Site.

One known release of TCE was from a rupture of an underground solvent delivery system at the Site. The length of time the pipes were leaking and the total volume of solvent released are not known. Other potential sources of hazardous contaminants that existed at the Site included the following: two concrete, 1,600-gallon underground wastewater storage tanks; one 10,000-gallon fuel tank; a drum storage area; four 500-gallon aboveground TCE storage tanks; one 250-gallon aboveground TCE storage tank; three 500-gallon TCE degreasers; one 1,000-gallon TCE aboveground storage tank; acid-brightening baths; and several hundred feet of underground piping system used to distribute TCE throughout the plant.

Inorganic contamination was what initially brought the Site to the attention of MDNR (now known as MDEQ). From 1946 to 1979, wastewater tanks from acid brightening baths were regularly emptied into a lagoon east of the plant. The lagoon was about 10 feet deep, 100 feet long, and 100 feet wide. The method of disposal for waste chlorinated solvents during this time period is not known.

In 1972, prompted by complaints from Hi-Mill employees to MDNR, the two on-site production wells and Target Pond were sampled for inorganic compounds. Water from one well and samples from Target Pond were found to contain elevated levels of metals. In 1976, MDNR resampled the production wells and the pond. Analysis indicated that only the samples from Target Pond showed elevated metals to be present.

In 1976, Hi-Mill built a second, smaller lagoon south of the original one. This second lagoon was designed to receive overflow from the original lagoon. On two occasions in 1976 and 1977, waste in the larger lagoon overflowed into Target Pond. After the overflow came to the attention of EPA, Hi-Mill applied for an NPDES permit. At that time, MDNR ordered Hi-Mill to stop discharging the untreated wastewater into the lagoon and required Hi-Mill to design a wastewater recycling and treatment program. The wastewater recycling program was used

between 1981 and 1988. At that time, Hi-Mill reportedly ceased all activities that generated wastewater containing metals.

As part of the 1978 construction of the fourth addition to the plant, a concrete floor was installed over solvent delivery lines connecting degreaser tanks to TCE storage tank(s). In August 1981, the rate at which the TCE containers had to be refilled caused plant personnel to report that the underground delivery line might be damaged. It is not known whether this was the first rupture in the lines or if more minor leaks had been present prior to 1981. Based on the appearance of the concrete floor, it appears that an approximate 8-inch wide section was removed along at least part of the length of the solvent delivery system so that the damaged piping could be dismantled and taken out.

In 1946, Hi-Mill Manufacturing purchased the gas station located across the then two-lane Highway M-59 for use as a storage facility. Sampling near the former gas station showed contaminants such as toluene and polyaromatic hydrocarbons (PAHs) to be present.

Initial Response

Removal of the underground piping was the first response taken by Hi-Mill to address Site contamination. No regulatory agencies were present during the work. Between 1981 and 1983, Hi-Mill attempted to alleviate the overflow problems in the larger of the two lagoons by spraying waste liquid from the lagoon into the air. Spray nozzles were mounted on top of the production facility and along portions of the facility's 8-foot high fence. When MDNR learned of the practice in 1983, they ordered Hi-Mill to cease the activity and to begin excavation and cleanup of the lagoon. Under MDNR oversight, Hi-Mill removed and disposed of 142 cubic yards of contaminated soil, 34,400 gallons of contaminated sludge, and 63,300 gallons of contaminated wastewater. Soils along the sides of the lagoon as well as a one-foot layer of clay from the bottom of the lagoon were also excavated.

After receiving complaints about the drinking water at the plant, OCHD resampled the two on-site production wells. TCE and 1,2-dichloroethylene (1,2-DCE) were detected in the water. Bottled water was supplied to the employees, and in 1989, a new well was installed.

Basis for Taking Action

During the RI, elevated metals were detected in Target Pond sediments and in on-site soil. The ecological assessment determined that Target Pond was not being adversely affected by the metals. Sediments from Target Pond were not analyzed for VOCs or other organic compounds.

The risk assessment for the Site evaluated two exposure pathways: potential risk to current on-site workers due to ingestion of surface soil, and risks posed to future on-site residents due to ingestion of shallow groundwater, dermal contact with shallow groundwater and Site soil, ingestion of soil, inhalation, and ingestion of garden vegetables. The exposure pathways determined to be of primary concern were ingestion of and dermal contact with shallow groundwater. Evaluation of the potential exposure showed that an adult resident drinking groundwater from the shallow aquifer would be exposed to an excess lifetime cancer risk of 4×10^{-3}. For children, this number was 3×10^{-4}. The hazard index for future on-site adult residents ingesting or having direct contact with shallow groundwater was calculated to be 37.

The hazard index for a child residing on the Site in the future and ingesting shallow groundwater was calculated to be 20.

The exposure pathway evaluated in the risk assessment for on-site workers was the ingestion of on-site surface soils. The assessment indicated that current on-site workers were not at risk via this pathway. Current worker exposure to Site groundwater was not evaluated because there was no indication that workers were exposed to the shallow groundwater at the Site. The vapor intrusion pathway was not evaluated in the risk assessment.

Because the possibility of future residential development at the Site was unlikely and because no risk was found to on-site workers, no active remediation of the Site was required when the ROD was signed in 1993. Since that time, however, the installation of community wells near the Hi-Mill Site and the potential overlap of the Wellhead Protection Area for two of the wells with the groundwater plume emanating from Hi-Mill introduced new target populations that could potentially be at risk. While current data show that only groundwater in the shallow aquifer is contaminated, the presence of VOCs in samples collected in the 1980s from the two on-site production wells that existed at the time, screened in the intermediate aquifer, indicates that the shallow and intermediate aquifers are connected.

Another development at the Site since the risk assessment was prepared is that there is the potential for the Michigan Department of Transportation to construct a municipal sewer system along Highway M-59. The depth to the groundwater contamination from Hi-Mill in the highway median is similar to the typical depth at which interceptor sewers are constructed. If construction of the sewer system takes place in the future, this could introduce a possible exposure pathway to off-site workers that was not evaluated during the Site's original risk assessment.

Contaminants of Concern
Hazardous substances that have been released into groundwater and soil at Hi-Mill and into Target Pond include aluminum, barium, chromium, copper, nickel, silver, and zinc. In addition, the following VOCs have also been released from the Site: 1,1,1-trichloroethane (1,1,1-TCA); 1,1,2-trichloroethane; 1,2-DCE; 1,1-dichloroethene; 1,1-dichloroethane; tetrachloroethene; TCE; vinyl chloride; ethylbenzene; chlorobenzene; benzene; xylenes; and toluene. A number of PAHs and phthalates were also detected in groundwater. The three VOCs detected at the highest concentrations in groundwater during the RI were 1,1,1-TCA; 1,2-DCE; and TCE. The contaminant of most concern, due to the high concentrations being detected in groundwater, is TCE.

C. REMEDIAL ACTIONS

Remedy Selection
The ROD for the Site was signed by EPA on September 28, 1993. The remedy selected in the ROD called for "No Action with Groundwater Monitoring and Institutional Controls" and consisted of the following main components:

- Long-term (30 years) groundwater monitoring of the shallow groundwater unit and intermediate aquifer for VOCs (TCE, 1,2-DCE, and vinyl chloride);

- Long-term (30 years) monitoring of the shallow groundwater unit near nearby surface water bodies for the same constituents which are monitored in the groundwater;

- Quarterly monitoring of the groundwater for the first three years, after which consideration will be given to reducing the sampling frequency to annually; and

- Implementation of institutional controls (ICs) to restrict development of the Hi-Mill property for residential use.

The decision in the ROD was based, in part, on the following findings: (1) that the contaminated shallow groundwater unit is not being used as a potable water source and cannot be used as one in the future due to its low water yield, so there are no beneficial uses for the shallow groundwater unit; and (2) the intermediate aquifer, which does supply potable water, showed no signs of contamination. The ROD further states, "If, however, the analytical results generated as a result of monitoring groundwater indicate the presence of contaminants above health based levels in the intermediate aquifer, a groundwater treatment system will be evaluated" (1993 ROD, Declaration section). The ROD states that the monitoring system would be designed to detect adverse impacts to the intermediate aquifer as well as potential impacts to nearby surface water bodies, and states that if EPA determines, based on the results of long-term monitoring, "that there are unacceptable impacts, ...a treatment system will be evaluated" (1993 ROD, p. 4).

The Statement of Work attached to the 1994 CD states that if additional information indicates that the groundwater monitoring program is inadequate, EPA may require that additional groundwater monitoring wells be installed and/or additional parameters be analyzed. Such "additional information" might include changes in contaminant characteristics and increases in the contaminant concentrations in groundwater.

The Final Response Design Plan (RDP), dated March 1995, outlined the objectives and rationale of the design and presented proposed locations for monitoring wells, staff gauges and piezometers. Monitoring program requirements were also defined in the Final RDP. The RDP stated that surface water body sampling would occur if EPA determined it was necessary based on groundwater monitoring results.

The design objectives outlined in the RDP were to minimize environmental and health impacts. The design rationale for the monitoring program was "to conduct monitoring at strategic locations to detect any changes to the environmental conditions at the site that may adversely impact public health or the environment."

Remedy Implementation

ICs, in the form of deed restrictions, were required by the ROD and were implemented on December 22, 1994. EPA signed a PCOR for the Site on March 30, 1995. On June 28, 1995, RD was completed, and RA began. On-site construction consisted of installing monitoring wells, staff gauges, and piezometers. A fence surrounding the property was already in place. Construction activities were completed on September 21, 1995, and groundwater monitoring began on May 17, 1996.

Appendix B

Deed Restrictions

DEC 22 9:32 1998

DEED RESTRICTIONS ON HI-MILL MANUFACTURING CO. SITE

Hi-Mill Manufacturing Company, owner in fee simple of the real estate described in Attachment 1, hereby imposes restrictions on the described real estate, also known as the Hi-Mill Manufacturing Company Site (hereinafter "the Site") in Highland, Oakland County, State of Michigan.

The following restrictions are imposed upon the Site, its present and any future owners, their authorized agents, assigns, employees or persons acting under their direction or control, for the purposes of protecting public health or welfare and the environment, preventing interference with the performance, and the maintenance, of any response actions selected and/or undertaken by the United States Environmental Protection Agency ("U.S. EPA"), or any party acting as agent for U.S. EPA, pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Specifically, the following deed restrictions shall apply to the Site as provided for in paragraph nine (9) of the Consent Decree:

1. There shall be no consumptive or other use of the shallow groundwater unit underlying the Site that could cause exposure of humans or animals to the shallow groundwater unit underlying the Site;

2. There shall be no residential or agricultural use of the Site, including, but not limited to, any installation of drinking water production wells in the shallow groundwater unit, except as approved by U.S. EPA. Further, there shall be no excavation beneath the paved parking areas at the Site.

3. There shall be no tampering with, or removal of, the containment or monitoring systems that remain on the Site as a result of implementation of any response action by U.S. EPA, or any party acting as agent for U.S. EPA, and which is selected and/or undertaken by U.S. EPA pursuant to Section 104 of CERCLA; and

4. There shall be no use of, or activity at, the Site that may interfere with, damage, or otherwise impair the effectiveness of any response action (or component thereof) selected and/or undertaken by U.S. EPA, pursuant to Section 104 of CERCLA, except with written approval of U.S. EPA, and consistent with all statutory and regulatory requirements.

The above use restrictions are intended for the protection of public health and the environment and may therefore be enforced by the U.S. EPA or the State of Michigan. The obligation to implement and maintain the above restrictions shall run with the land and shall remain in effect permanently,

O.K. - J.S.

unless and until such time as U.S. EPA determines there is no longer contamination on the Site.

IN WITNESS WHEREOF, Robert Beard has caused these Deed Restrictions to be executed this 22nd day of December, 1994.

FOR HI-MILL MANUFACTURING COMPANY

BY: Robert F Beard
Robert F. Beard

Witnesseth:

Denise Russette
WITNESS Denise Russette

Elaine J Kelley
WITNESS ELAINE J. KELLEY

STATE OF MICHIGAN
COUNTY OF MACOMB

Subscribed and sworn to before me this 22nd Day of December, 1994 by Robert F. Beard

Denise M. Russette
Denise M. Russette
Macomb County, Michigan
My Commission expires: 5/26/96

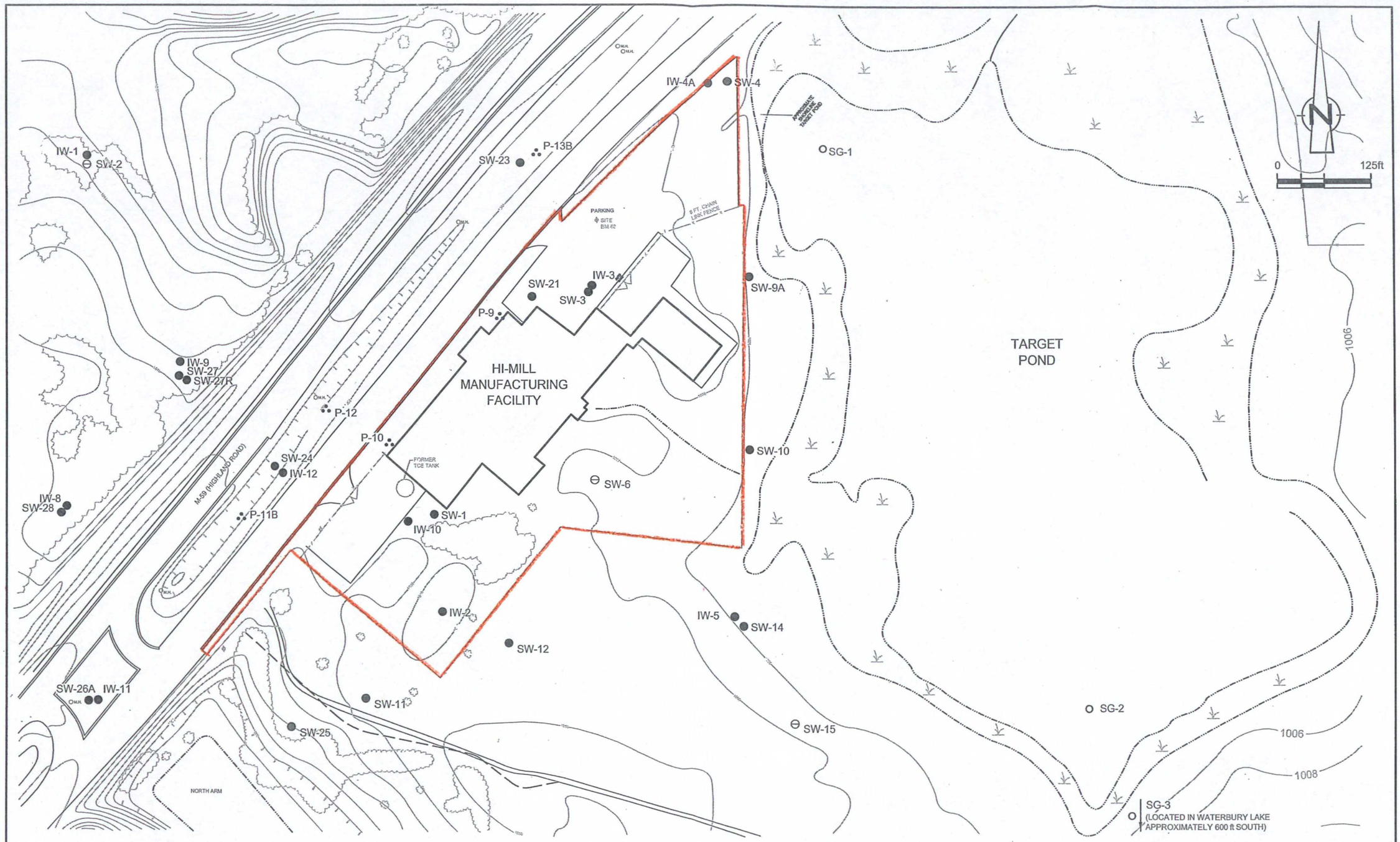
Drafted by and when recorded return to:
Butzel Long
By Richard Beard
Robert Beard
150 W. Jefferson
Detroit, Mi. 48226-4430
Denise Russette

ATTACHMENT 1

LEGAL DESCRIPTION

Town 3 North, Range 7 East, Section 23
That part of the Southwest 1/4 of the Northwest 1/4 of the Northeast 1/4 of Section lying Southeasterly of M-59 highway, Also that part of Southwest 1/4 of Northeast 1/4 of Section described as beginning at intersection of North line of Southwest 1/4 of Northeast 1/4 with Southeasterly right of way line of M-59 Highway, thence South 40 degrees 51 minutes 18 seconds West 100 feet, thence South 49 degrees 8 minutes 42 seconds East 250 feet, thence North 40 degrees 51 minutes 18 seconds East 305 feet, thence West along North line of Southwest 1/4 of Northeast 1/4 to beginning.

HIGHLAND
11-23-202-003 NE1/4



LEGEND

- SW-1 EXISTING GROUNDWATER MONITORING WELL
- P-10 EXISTING PIEZOMETER LOCATION
- APPROXIMATE BOUNDARIES OF INSTITUTIONAL CONTROLS

SOURCE: GERAGHTY AND MILLER INC. SITE TOPOGRAPHY AND PHYSICAL FEATURES DRAWING AND HUGHES LAND SURVEYORS, FOWLERVILLE, MICHIGAN, SURVEY DATED JULY 16, 2008

HI-MILL MANUFACTURING COMPANY

Oakland County, Michigan

06124-00(059)GN-WA001 MAY 03/2011

Appendix C

Public Notice

LEGAL NOTICES

STATE OF MICHIGAN
PROBATE COURT
COUNTY OF OAKLAND

NOTICE TO CREDITORS
DECEDENT'S ESTATE
FILE NO 2015-364,573DE

Estate of Shirley Ann Pippin-Lucas
Date of birth 6/5/1934

NOTICE TO CREDITORS: The decedent, Shirley Ann Pippin-Lucas, died December 15, 2012.

Creditors of the decedent are notified that all claims against the estate will be forever barred unless presented to Rochelle R. Pippin, personal representative or to both the probate court at 1434 E. Muir Ave., Hazel Park and the personal representative within 4 months after the date of publication of this notice.
July 31, 2015

Rochelle R. Pippin
1434 E. Muir Ave.
Hazel Park, MI 48030
248 275-4299

BARGAINS!

4 DRAWER vertical file cabinet w/key. FREE 248-814-1194

BARBIE DOLL collection, 7 labeled, special occasion, on stands, $95. 248-338-0616

BOB'S CARPET
Plush carpet $5 a yd, heavy pad $2.50 a yd, carpet restretching & repairs. BOB (248)681-5771

HEX TABLE, floor & table lamps, wall shelf, dark pine, $50. 248-528-2288

BARGAINS!

HP ALL in one Printer, $25. 248-628-2939

MAPLE DINING table w/ leaf, six fabric chairs w/ casters, $100. (248) 738-9651

SINGER SEWING Machine $50. 248-666-9444

BIRDS

PARAKEETS FOR SALE, $15.
Call: (248) 673-9503

DOGS

MINI AUSSIE PUPPIES, males, parents on site. $500. shots & tails done. 248-236-4150

PET SUPPLIES & SERVICES

LOW COST
Vaccine Wellness Clinic

Tractor Supply Co.,
10150 Highland Road
White Lake
Sun. 8/9; 4-6:30pm
Tractor Supply Co.
4601 Grand River, Howell
Sat. 8/15; 10-2pm

3 year rabies $16. Heart worm tests $19. Skin, ear and eye exam avail.
313-686-5701

HELP WANTED GENERAL

CAREGIVERS
In Group homes, full and part-time, all shifts avail. Oakland & Macomb Cty.
248-853-6610/586-790-1668
or email resume to
ajackson@lifecenterinc.net

GARAGE SALES

YARD, RUMMAGE & GARAGE SALES

GARAGE SALE

DOWNSIZING/ GARAGE SALE
Aug. 6-9, 9am-5pm
461 Amsbury Ct.,
Lake Orion.
Tools, furniture, collectibles, toys, kids stuff, household, trampoline.

HUGE GARAGE SALE! 4806 Elizabeth Lake Rd., Waterford. Aug.6-8, 9-4pm. Lots Of Items!

QUAIL RIDGE Subdivision Garage Sale: Adams Rd, btw Avon and Hamlin. Multiple Family Sale: Thursday 08/06 9-4, Friday 08/07 9-4 and Saturday 08/08 9-1

YARD, RUMMAGE & GARAGE SALES

TROY 391 Randall. Aug. 6,7,8; 9am-4pm. Furniture, household, kitchen items, clothes, decor, and much more!

W. BLOOMFIELD, 5151 Kitson & 2625 Leroy, Aug 6-8, 8:30-5p. Off Commerce Rd. E of Hiller. Furniture, generator, books, Children's items, & car parts.

WATERFORD 2 family sale. 3770 Seebolt. August 6-8, 9am-?

WHITE LAKE, 1245 GROVE POINT, Aug. 6, 7 & 8, 9-4pm. Moving Sale, lots of tools & supplies, furniture, household items, everything goes!

WHITE LAKE, 7755 HALEY, Aug. 6-8, 9-5pm. Antiques, collectibles, fishing & misc.

WHITE LAKE, Caribou Creek Sub Sale, Aug. 6 - 8, 9 am. Off White Lake, W. of Teggerine.

LEGAL NOTICES

Notice of Public Hearing of Practicability Lake Improvement Board for Scott Lake

Notice is hereby given that the Lake Improvement Board for Scott Lake in the Township of Waterford, County of Oakland will meet at the **Oakland County Water Resources Commissioners Office, Lower Level Cafeteria, located at One Public Works Drive, Bldg. 95 West, Waterford, Michigan 48328 at 6:30 p.m. on Tuesday August 25, 2015** to determine the practicability of three year program consisting of aquatic weed control augmentation well pump operations and fish restocking for Scott Lake for the years 2016, 2017 and 2018. The estimated annual cost of the project is $26,000

This hearing is called pursuant to the provisions of Sections 30910 of Part 309 of Public Act No. 451 of 1994, as amended.

Lake Improvement Board for Scott Lake
Published August 5, 2015 and August 12, 2015

LEGAL NOTICES

EPA Begins Review of Hi-Mill Manufacturing Co. Superfund Site Oakland County, Michigan

U.S. Environmental Protection Agency is conducting a five-year review of the Hi-Mill Manufacturing Co. Superfund site located at 1704 Highland Road (State Highway M-59) in Highland Township, next to the Highland State Recreation Area. Superfund law requires regular checkups at sites that have been cleaned up – with waste managed on-site – to make sure the cleanup continues to protect people and the environment. This is the fourth five-year review of this site.

EPA's cleanup of this site consisted of long-term monitoring of groundwater contaminated with volatile organic compounds and implementation of institutional controls to restrict development of the property for residential use. EPA is conducting this review in coordination with the Michigan Department of Environmental Quality.

More information is available at the Highland Township Library, 205 W. Livingston St., Highland Township; and at www.epa.gov/region5/cleanup/himill. The review should be completed this summer.

The five-year review is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Linda Kerr
Remedial Project Manager
312-886-7341
kerr.linda@epa.gov

Cheryl Allen
Community Involvement Coordinator
312-353-6196
allen.cheryl@epa.gov

You may also call EPA toll-free at 800-621-8431, 9:30 a.m. – 5:30 p.m., weekdays.

HELP WANTED GENERAL

APARTMENT COMPLEX MAINTENANCE / GROUNDS TECHNICIAN
Duties include:
- Repair, improve vacant and occupied apartments
- Performance of resident service requests
- Carpentry, plumbing, painting

Qualifications include:
- At least 1-3 yrs verifiable general maintenance experience preferred
- Have a valid drivers license
- Must be motivated and self-directed

Email Resumes to
crystal@imsteam.net
EOE

BOOKKEEPER for mfg company. Business Administration/Accounting degree req'd. **Must speak fluent Spanish.** Responsible for bank reconciliations, financial reports, customer service with Mexico facility. **IT SUPPORT TECHNICIAN** for mfg company. Night shift. Experienced Microsoft Server 2012, VMWare, Office 2013, Smart Phone and General IT support required. Exp AIM/ERP preferred. Send resume/salary requirements to: HR@centuryplastics.net

CENTURY PLASTICS
Shelby Twp is hiring for:

- PRODUCTION SUPERVISOR – Afternoons or Nights. Experienced in supervision, following production schedule, housekeeping, safety compliance, and monitoring SPC charts. 5+ years' supervisory exp in plastics industry required
- MAINTENANCE TECHNICIAN Must have experience with electrical machine control and hydraulic machine control troubleshooting. Responsible for maintaining machinery, performing adjustments and preventative maintenance.
- DESIGNER Must have ability to run NX and Catia and perform mold flows. Experience with TeamCenter and Trubiquity as well as plastic injection and compression molded part design experience a must.

Send resume and salary requirements to:
HR@centuryplastics.net

CHARTWELLS
Oakland University
Now hiring 50+
FOOD SERVICE WORKERS
COOKS, BARISTAS
CASHIERS AND
CATERING SERVERS
Please send resume to
Annamaria.Cali@compass-usa.com

CUSTODIAN-FT
Exp in floor care and general cleaning, able to supervise a crew.
CLEANING POSITIONS-PT
No exp needed. Immediate Openings in Auburn Hills & surrounding areas. Background Check & Drug Screen.
586-759-3706.

Exp' **TREE CLIMBERS AND GROUNDSMEN** needed for professional tree company of over 17 years. Must have reliable transp. and valid driver's license. Serious inquiries only at 248-394-0068.

IT ONLY TAKES a few minutes to check our classifieds columns ... and you just may find money saving deals.

HELP WANTED GENERAL

EXP. MEDICAL BILLER for Specialist office PT or FT with D and E Thomas experience. Bloomfield Hills location. Qualified recipients only. Fax resume 248-769-6777

JANITORIAL Part time evening Rochester/Troy/Auburn Hills area. 20-29 hours per week. Apply online at usservico.com or fax resume to 248-926-9595

MAINTENANCE MECHANIC EXPERIENCED

Immediate opening for a maintenance mechanic with a minimum of five years of experience. Qualified candidate MUST possess experience in the repair and maintenance of production equipment and plant facilities. Electrical, PLC & hydraulic maintenance experience is a plus. Located one minute off I-68, Vidon Plastics offers an excellent work environment with a complete benefit package including profit sharing. Send your resume to:
Vidon Plastics, Inc.
P.O. Box 56
Lapeer, MI 48446
kay@vidonplastics.com

OFFICE CLEANING
Auburn Hills area
20 Direct Hire positions, immediate start
5:30-9:30 pm, weekly pay
Apply at
www.saberscaffoldservices.com
or call 248-598-5255

HELP WANTED FULL TIME

ADDISON TREE & Outdoor Services is now hiring All Positions, Sales Associate, Tree Climber and Ground Manager. 3+ Years Exp. Must have Chauffeur's License, CDL a Plus. Call: 248-830-1080 or e-mail resume to AddisonTree@gmail.com

HELP WANTED PART TIME

TheraMatrix Physical Therapy in Pontiac is seeking a Part Time **JANITOR** to maintain the interior & exterior company grounds. Retirees are welcome to apply. Must be reliable and friendly. Call 248-333-3335 or email to hrgeneralist@theramatrix.com

WANT TO EARN EXTRA CASH?
Now Hiring!
Experienced **MAIL INSERTING MACHINE OPERATORS** and **MAIL SORTERS**
Must be available to work 5-8 hours on the midnight shift during the first 4-7 days of every month.
Also - -
Experienced **COMPUTER PROGRAMMERS** and **COMPUTER OPERATORS, WAREHOUSE AND BUILDING SUPPORT**
Must be available to work full-time. Send resumes to jhenige@IDS.com or fax 248-588-4645

YOU'LL NEVER KNOW how effective a classified ad is until you take one yourself! Reach the entire area without leaving the comfort of your home. Call and place your classified today to sell those unwanted items.

CAN'T FIND what you're looking for? Find it the fast & easy, effective way by using the classifieds! Call and place a low cost classified ad under "Wanted To Buy" in next week's paper.

LEGAL NOTICES

Notice of Public Hearing of Assessment Lake Improvement Board for Scott Lake

Notice is hereby given that the Lake Improvement Board for Scott Lake, Township of Waterford, County of Oakland, will meet at the **Oakland County Water Resources Commissioner's Office, Lower Level Cafeteria, located at One Public Works Drive, Bldg. 95 West, Waterford, Michigan 48328 at 6:30 p.m. on Tuesday, August 25th** to review, to hear any objections to, and to confirm a three year special assessment roll for the purpose of implementing an aquatic weed control program, augmentation well pump operations and fish restocking for Scott Lake for the years 2015, 2016, and 2017. The estimated annual cost of the project is $26,000 and the special assessment roll will be on file at the Waterford Township Offices for public examination.

Any person may appeal and be heard at the said Hearing, which is called pursuant to provisions of Sections 30913 of Part 309 of Public Act No. 451 of 1994, as amended. The special assessment must be protested at the Hearing held for the purpose of confirming the special assessment roll before the Michigan Tax Tribunal may acquire jurisdiction of any special assessment dispute. Appearance and protest of the special assessment at the time and place of review is required in order to appeal the amount of the special assessment to the Michigan Tax tribunal. An owner of or party in interest in property to be assessed, or his or her agent, may appear in person to protest the special assessment or may protest the special assessment by letter filed with the Springfield Township Supervisor. Attention: Ms. Margaret Birch, 5200 Civic Center Drive, Waterford, Michigan 48329-3773 at or prior to the time of review, in which case personal appearance is not required. If the special assessment is protested as provided above, the owner or any party having an interest in the real property may file a written appeal of the special assessment with the Michigan Tax Tribunal within 30 days after the confirmation of the special assessment roll has been published in a newspaper of general circulation.

Lake Improvement Board for Scott Lake
Published August 5, 2015 and August 12, 2015

ADVERTISING/ PUBLIC RELATIONS

ACCOUNT RELATIONSHIP SPECIALIST/ADVERTISING SALES SUPPORT:

21st Century Media is seeking an individual to provide customer service and support to advertising in the Sales Division. We are looking for a super-organized, detail oriented person to closely work with our sales team. This position will afford you the opportunity to gain significant experience in the field of advertising and sales support.

DUTIES INCLUDE BUT ARE NOT LIMITED TO:
* Working with sales team and digital operations teams
* Processing digital and print insertion orders
* Monitoring media campaigns to ensure delivery is on track with customer expectations, and provide feedback to sales team
* Implement creative changes and delivery changes
* Communicate with accounting staff to resolve issues quickly
* React to change productively and encourages success of co-workers, and contribute to a positive and constructive atmosphere
* Provide to-notch customer service to both internal and external customers

Individual must enjoy working in a fast paced work atmosphere with good time management, investigative/troubleshooting, and organizational skills.

CANDIDATE TO POSSESS:
* Knowledge of digital advertising
* Strong computer skills using Excel, PowerPoint, Word, Gmail, Google Drive and other software programs a plus
* Comfortable using digital tools such as Google Docs, Skype, etc.
* Excellent oral and written communication skills
* Excellent problem solving skills
* Ability to work independently and make sound business decisions related to achieving revenue goals
* Enjoy working in a team atmosphere
* College degree in Advertising or Marketing or at least 2 years relevant sales experience preferred
* Multi Media advertising sales experience a plus

This is a full-time position with great benefits. Apply now!

Email your resume and salary requirements to:
Stefanie Borawski
SBORAWSKI@21ST-CENTURY-MEDIA.COM

No Phone Calls Please
We Are An Equal Opportunity Employer

AUTOMOTIVE

Are you Mechanically Inclined?

We are extending the opportunity for you to come to our company and see what **The HMS Company** is all about!

Come to HMS for FREE Automotive Body Assembly Process and Design Training

Training outline:
-Automotive Body Assembly Process and Design Overview.
-Training on Typical Process Tasks.
-Body Assembly Design Concept.
-Detail Training (Unigraphics Nx9)

Prerequisite:
-Self-Motivated.
-High School Graduate.
-Basic Computer 3D Design knowledge (UG, Catia, Autocad,Pro E)
-Mechanical Knowledge/ Thinking.

Benefits:
Good Understanding/ Knowledge of Current Automotive Body Assembly Process and Design.

Possible Employment Opportunities

Email
jgiese@hmscollc.com

AUTO BODY TECHS
$80k – $100k Maaco Troy
Call 248-362-2233 or send resume to
maacotroy@sbcglobal.net

REMEMBER - when placing a classified to get fast results be sure to include:
1) all the details
2) include the price
3) be available to callers
As easy as 1 - 2 - 3!

AUTOMOTIVE

CERTIFIED AUTO MECHANIC for busy auto repair shop in Auburn Hills. Brakes, Engine, heating, cooling, front end etc ASC cert's a plus. Hourly pay Full time, Health, Dental 401k Vacations. **HIRING BONUS !** Send resumes to:
briant@fenkell.com
Fax: 248-276-6455

CLERICAL/ ADMINISTRATIVE

RECEPTIONIST

Established Engineering Company is seeking a Part-Time receptionist. Must be professional, organized, computer literate and reliable .

EXCELLENT OPPORTUNITY FOR A COLLEGE STUDENT.

Please submit resume to:
Human Resources
5750 New King Street
Suite 200
Troy, MI 48098
Fax: (586) 323-5227

E-Mail: dbellmore@uticaenterprises.com

RECEPTIONIST exp'd for medical office Bloomfield Hills 8a-5p; M-F Long Lake / Woodwood Rd area Michigan95@att.net

TROY MANUFACTURED Home Community seeks an Experienced Assistant Office Manager & Rental Agent for 40 Hrs Per Week. Potential to Earn $600 or more a week. highlandgreens@comcast.net

DENTAL

ATTENTION DENTISTS OR RETIRED DENTIST'S DDS-DMD LOOKING FOR EXTRA DAYS!
Have extra Days for good compensation, without administrative hassles? We handle all administrative tasks for billing and scheduling. Greater Detroit area. OnHealthcare focuses on serving the needs of Residents of Senior Living Facilities. We provide all the supplies and equipment and a dental assistant to support the Dentist. Call Kathleen Kirwen at 419-874-0393 (Ext 4201), email to kkirwen@onhealthcare.com, or fax at 614-416-2105. We offer a $500 signing bonus-or-$500 referral bonus if you refer a Dentist DDS or DMD who comes on board with OnHealthcare. PT or FT positions available.

DENTAL ASST/FRONT DESK
Part-Time, Dental Exp Only.
Clarkston Area
E-mail resume to
stevenjW4@securedds.com

DIRECT CARE

DIRECT CARE
Full-time afternoons and midnights open in Oxford. $9.28/hr to start if MORC trained. Health Insurance. Call Liz **248-693-0447.**

DIRECT CARE
Full-time afternoons open in Oxford. Starting pay is $9.28/hr if MORC trained. Health Insurance. Call **248-628-1559.**

DIRECT CARE
Full-time afternoons open in Oxford. Small group home with 3 male residents. Start at $9.28/hr if MORC trained. Health Insurance.
Call **248-628-7157.**

DIRECT CARE STAFF No exp. Paid Vacations & Training. We offer health insurance.
248-666-9295

Now hiring
CAREGIVERS
for Oakland County.
For immediate interview
call 586-879-9284
or 248-860-6801

DRIVERS

CDL A DRIVERS
Are you looking for a job? We are looking for you.
Local Co. with various positions & shifts avail. in Metro area. Paid Wkly, Vacations, Health Ins., Dental, Vision, Aflac Ins. Min. 1 yr exp w/clean MVR.
• EARN UP TO $500 PER WEEK
SIGN ON BONUS UP TO $2000
CALL TODAY for more info.
1-877-977-4287

CDL CLASS A DRIVER with air brake endorsement. Must have exp. driving truck and towing trailers, clean driving record, and a valid medical card. Loading and unloading of equipment and operating a bobcat/skid steer. Pay based on exp. If you meet these requirements please contact our office betw. 9a-3p at 248-623-6472.

THIS IS THE PLACE FOR CASH! So if you have merchandise to sell call the classified department today!

Appendix D

Site Inspection Report

Site Inspection Checklist

I. SITE INFORMATION	
Site name: HiMill MFG. Co.	**Date of inspection:** 6/24/15
Location and Region: HIGHLAND TOWNSHIP, MI	**EPA ID:** MID 005 341 714
Agency, office, or company leading the five-year review: EPA - REGION 5	**Weather/temperature:** SUNNY ~ 75-80°F

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☐ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☒ Other GW MONITORING
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** N/A _____ _____ _____
   Name Title Date
   Interviewed ☐at site ☐at office ☐by phone Phone no. _____
   Problems, suggestions; ☐Report attached _____

2. **O&M staff** N/A _____ _____ _____
   Name Title Date
   Interviewed: ☐at site ☐at office ☐by phone Phone no. _____
   Problems, suggestions; ☐Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

   Agency MDEQ
   Contact AUTUMN LAWSON SR. ENVIRONMENTAL QUALITY ANALYST 6/24/15 517/284-5125
   Name Title Date Phone no.
   Problems; suggestions; ☐Report attached _____

   Agency MDEQ
   Contact CHARLES GRAFF SR. GEOLOGIST 6/24/15 517/284-5106
   Name Title Date Phone no.
   Problems; suggestions; ☐Report attached _____

   Agency _____
   Contact _____ _____ _____ _____
   Name Title Date Phone no.
   Problems; suggestions; ☐Report attached _____

   Agency _____
   Contact _____ _____ _____ _____
   Name Title Date Phone no.
   Problems; suggestions; ☐Report attached _____

4. **Other interviews** (optional) ☐ Report attached.

ROBERT SOLES - RAVES INC 248/887-0644
RAMIZ SHEENA - " 248/935-2043
JOE HUTSON " 248/887-0644
MIKE GAZIEN APPLIED ENVIRONMENTAL 734/975-1970

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

☐ O&M manual	☑ Readily available	☐ Up to date	☐ N/A
☐ As-built drawings	☐ Readily available	☒ Up to date	☐ N/A
☐ Maintenance logs	☐ Readily available	☐ Up to date	☐ N/A

Remarks

2. Site-Specific Health and Safety Plan ☑ Readily available ☐ Up to date ☐ N/A

☐ Contingency plan/emergency response plan ☐ Readily available ☐ Up to date ☐ N/A

Remarks

3. O&M and OSHA Training Records ☑ Readily available ☐ Up to date ☐ N/A

Remarks

4. Permits and Service Agreements

☐ Air discharge permit	☐ Readily available	☐ Up to date	☑ N/A
☐ Effluent discharge	☐ Readily available	☐ Up to date	☑ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☑ N/A
☐ Other permits_____	☐ Readily available	☐ Up to date	☑ N/A

Remarks

5. Gas Generation Records ☐ Readily available ☐ Up to date ☑ N/A

Remarks

6. Settlement Monument Records ☐ Readily available ☐ Up to date ☑ N/A

Remarks

7. Groundwater Monitoring Records ☑ Readily available ☐ Up to date ☐ N/A

Remarks

8. Leachate Extraction Records ☐ Readily available ☐ Up to date ☑ N/A

Remarks

9. Discharge Compliance Records

☐ Air	☐ Readily available	☐ Up to date	☑ N/A
☐ Water (effluent)	☐ Readily available	☐ Up to date	☑ N/A

Remarks

10. Daily Access/Security Logs ☐ Readily available ☐ Up to date ☑ N/A

Remarks

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☐ Contractor for State
☐ PRP in-house ☐ Contractor for PRP
☐ Federal Facility in-house ☐ Contractor for Federal Facility
☐ Other IN TRANSITION
FORMER PRP → EPA

2. **O&M Cost Records**

☐ Readily available ☐ Up to date
☐ Funding mechanism/agreement in place
Original O&M cost estimate_____ ☐ Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS ☐ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☐ Gates secured ☒ N/A
   Remarks _____

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☒ N/A
   Remarks _____

C. Institutional Controls (ICs)

1. **Implementation and enforcement**
   Site conditions imply ICs not properly implemented ☐ Yes ☐ No ☐ N/A
   Site conditions imply ICs not being fully enforced ☒ Yes ☐ No ☐ N/A

   Type of monitoring (*e.g.*, self-reporting, drive by) _____
   Frequency _____
   Responsible party/agency EPA
   Contact _____ _____ _____ _____
   Name Title Date Phone no.

   Reporting is up-to-date ☐ Yes ☐ No ☒ N/A
   Reports are verified by the lead agency ☐ Yes ☐ No ☒ N/A

   Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A
   Violations have been reported ☐ Yes ☐ No ☒ N/A
   Other problems or suggestions: ☐ Report attached

2. **Adequacy** ☐ ICs are adequate ☐ ICs are inadequate ☐ N/A
   Remarks UNDER REVISION

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☐ No vandalism evident
   Remarks SITE IS NOW SECURE W/NEW OWNERS

2. **Land use changes on site** ☐ N/A
   Remarks MFG CO → ABANDONED → WAREHOUSE/OFFICE FUNCTIONS

3. **Land use changes off site** ☒ N/A
   Remarks _____

VI. GENERAL SITE CONDITIONS

A. Roads ☐ Applicable ☒ N/A

1. **Roads damaged** ☐ Location shown on site map ☐ Roads adequate ☒ N/A
   Remarks _____

B. Other Site Conditions

Remarks SOME DAMAGE VISIBLE TO SITE MONITORING WELLS

EPA TO PERFORM MORE IN DEPTH EVALUATION

VII. LANDFILL COVERS ☐ Applicable ☒ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☐ Settlement not evident
   Areal extent _____ Depth _____
   Remarks _____

2. **Cracks** ☐ Location shown on site map ☐ Cracking not evident
   Lengths _____ Widths _____ Depths _____
   Remarks _____

3. **Erosion** ☐ Location shown on site map ☐ Erosion not evident
   Areal extent _____ Depth _____
   Remarks _____

4. **Holes** ☐ Location shown on site map ☐ Holes not evident
   Areal extent _____ Depth _____
   Remarks _____

5. **Vegetative Cover** ☐ Grass ☐ Cover properly established ☐ No signs of stress
   ☐ Trees/Shrubs (indicate size and locations on a diagram)
   Remarks _____

6. **Alternative Cover (armored rock, concrete, etc.)** ☐ N/A
   Remarks _____

7. **Bulges** ☐ Location shown on site map ☐ Bulges not evident
   Areal extent _____ Height _____
   Remarks _____

8. **Wet Areas/Water Damage** ☐ Wet areas/water damage not evident
- ☐ Wet areas ☐ Location shown on site map Areal extent_____
- ☐ Ponding ☐ Location shown on site map Areal extent_____
- ☐ Seeps ☐ Location shown on site map Areal extent_____
- ☐ Soft subgrade ☐ Location shown on site map Areal extent_____

Remarks_____

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☐ No evidence of slope instability
Areal extent_____
Remarks_____

B. Benches ☐ Applicable ☐ N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** ☐ Location shown on site map ☐ N/A or okay
Remarks_____

2. **Bench Breached** ☐ Location shown on site map ☐ N/A or okay
Remarks_____

3. **Bench Overtopped** ☐ Location shown on site map ☐ N/A or okay
Remarks_____

C. Letdown Channels ☐ Applicable ☐ N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** ☐ Location shown on site map ☐ No evidence of settlement
Areal extent_____ Depth_____
Remarks_____

2. **Material Degradation** ☐ Location shown on site map ☐ No evidence of degradation
Material type_____ Areal extent_____
Remarks_____

3. **Erosion** ☐ Location shown on site map ☐ No evidence of erosion
Areal extent_____ Depth_____
Remarks_____

4. **Undercutting** ☐ Location shown on site map ☐ No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ ☐ No obstructions
☐ Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
☐ No evidence of excessive growth
☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations ☐ Applicable ☐ N/A

1. **Gas Vents** ☐ Active ☐ Passive
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____

2. **Gas Monitoring Probes**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____

3. **Monitoring Wells** (~~within surface area of landfill~~) ON SITE
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☑ Needs Maintenance ☐ N/A
Remarks_____

4. **Leachate Extraction Wells**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☑ N/A
Remarks_____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☑ N/A
Remarks_____

E. Gas Collection and Treatment ☐ Applicable ☑ N/A

1. **Gas Treatment Facilities**
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs Maintenance
Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
☐ Good condition ☐ Needs Maintenance
Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
☐ Good condition ☐ Needs Maintenance ☐ N/A
Remarks_____

F. Cover Drainage Layer ☐ Applicable ☑ N/A

1. **Outlet Pipes Inspected** ☐ Functioning ☐ N/A
Remarks_____

2. **Outlet Rock Inspected** ☐ Functioning ☐ N/A
Remarks_____

G. Detention/Sedimentation Ponds ☐ Applicable ☑ N/A

1. **Siltation** Areal extent_____ Depth_____ ☐ N/A
☐ Siltation not evident
Remarks_____

2. **Erosion** Areal extent_____ Depth_____
☐ Erosion not evident
Remarks_____

3. **Outlet Works** ☐ Functioning ☐ N/A
Remarks_____

4. **Dam** ☐ Functioning ☐ N/A
Remarks_____

H. Retaining Walls ☐ Applicable ☑ N/A

1. **Deformations** ☐ Location shown on site map ☐ Deformation not evident
Horizontal displacement_____ Vertical displacement_____
Rotational displacement_____
Remarks_____

2. **Degradation** ☐ Location shown on site map ☐ Degradation not evident
Remarks_____

I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☑ N/A

1. **Siltation** ☐ Location shown on site map ☐ Siltation not evident
Areal extent_____ Depth_____
Remarks_____

2. **Vegetative Growth** ☐ Location shown on site map ☐ N/A
☐ Vegetation does not impede flow
Areal extent_____ Type_____
Remarks_____

3. **Erosion** ☐ Location shown on site map ☐ Erosion not evident
Areal extent_____ Depth_____
Remarks_____

4. **Discharge Structure** ☐ Functioning ☐ N/A
Remarks_____

VIII. VERTICAL BARRIER WALLS ☐ Applicable ☒ N/A

1. **Settlement** ☐ Location shown on site map ☐ Settlement not evident
Areal extent_____ Depth_____
Remarks_____

2. **Performance Monitoring** Type of monitoring_____
☐ Performance not monitored
Frequency_____ ☐ Evidence of breaching
Head differential_____
Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES ☐ Applicable ☐ N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines ☐ Applicable ☒ N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
☐ Good condition ☐ All required wells properly operating ☐ Needs Maintenance ☐ N/A
Remarks_____

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
☐ Good condition ☐ Needs Maintenance
Remarks_____

3. **Spare Parts and Equipment**
☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided
Remarks_____

B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☒ N/A

1. **Collection Structures, Pumps, and Electrical**
☐ Good condition ☐ Needs Maintenance
Remarks_____

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
☐ Good condition ☐ Needs Maintenance
Remarks_____

3. **Spare Parts and Equipment**
☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided
Remarks_____

C. Treatment System ☐ Applicable ☑ N/A

1. **Treatment Train** (Check components that apply)
☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
☐ Air stripping ☐ Carbon adsorbers
☐ Filters_____
☐ Additive (*e.g.*, chelation agent, flocculent)_____
☐ Others_____
☐ Good condition ☐ Needs Maintenance
☐ Sampling ports properly marked and functional
☐ Sampling/maintenance log displayed and up to date
☐ Equipment properly identified
☐ Quantity of groundwater treated annually_____
☐ Quantity of surface water treated annually_____
Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
☐ N/A ☐ Good condition ☐ Needs Maintenance
Remarks_____

3. **Tanks, Vaults, Storage Vessels**
☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs Maintenance
Remarks_____

4. **Discharge Structure and Appurtenances**
☐ N/A ☐ Good condition ☐ Needs Maintenance
Remarks_____

5. **Treatment Building(s)**
☐ N/A ☐ Good condition (esp. roof and doorways) ☐ Needs repair
☐ Chemicals and equipment properly stored
Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☐ N/A
Remarks_____

D. Monitoring Data

1. Monitoring Data
☐ Is routinely submitted on time ☐ Is of acceptable quality

2. Monitoring data suggests:
☐ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

E. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☐ N/A
Remarks _____

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

EXISTING MONITORING WELLS SHOW SOME DAMAGE → GET FURTHER EVALUATION BY EPA GEOLOGIST/ CONTRACTOR

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

EPA NEEDS TO REVISE GW MONITORING REGIMEN FOR SITE & CONTINUE LONG TERM GW MONITORING SINCE NO CURRENT RCP EXISTS AT THIS TIME.

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

WELLS NEED EVALUATION, SOME MAY NEED TO BE REPLACED

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

REVIEW/REVISE MONITORING OF GW i.e. WELLS

Compromised monitoring well (MW21) outside of warehouse.

Compromised monitoring well (SW3), broken at base, tubing visible.

Monitoring well (IW3) with bumper poles, outside of warehouse.

Monitoring well (SW9A) securely locked.

Monitoring well (SW12) with compromised base.

Damage to perimeter fence.

Secured monitoring well location.

Monitoring well (IW5) secured.

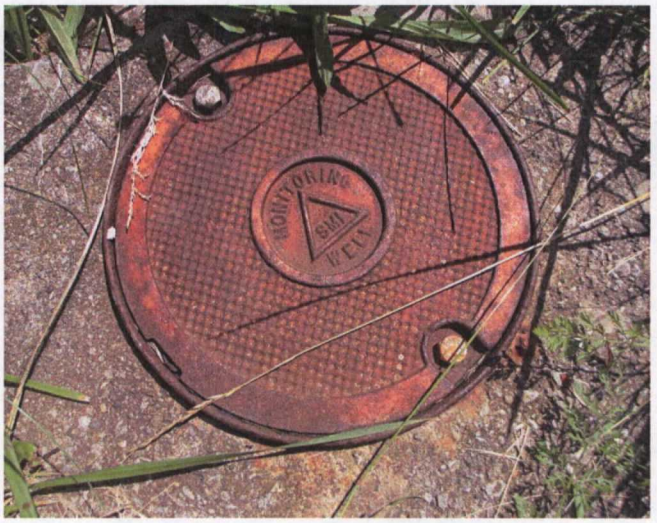
Monitoring well (SW6) in back of warehouse on eastern side of site.

Unlabeled monitoring location.

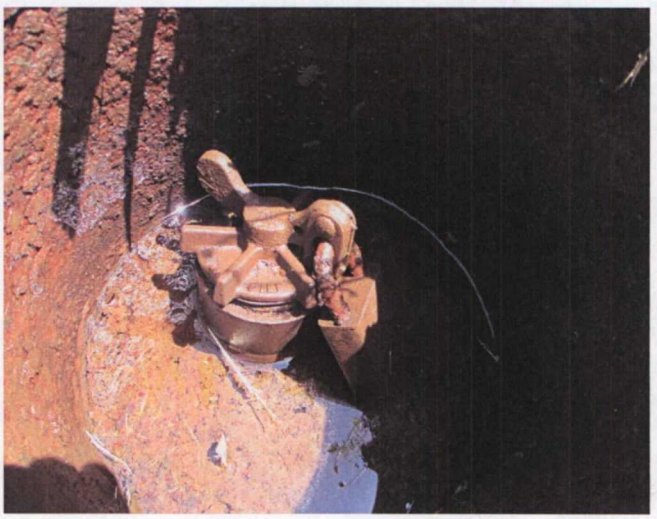
General debris and standing water near monitoring well (IW2).

Secured monitoring well (IW10) at southeast corner of warehouse.

Flush mount monitoring well in highway median.



Standing water in flush mount monitoring well in highway median.

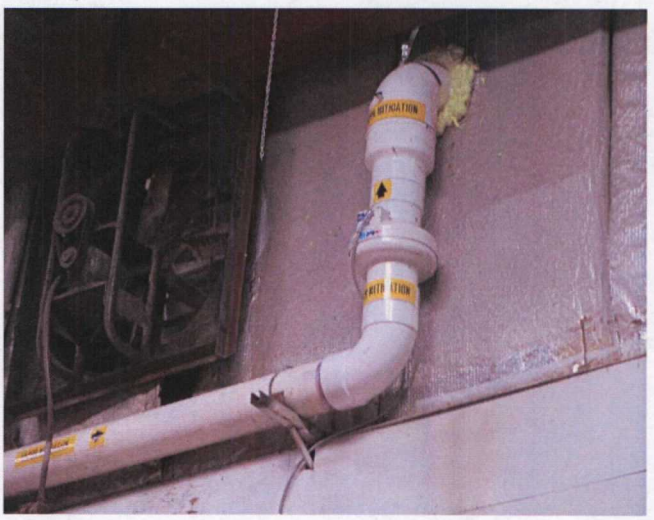


Abandoned trailer on parking lot filled with tires.

Inside of warehouse with new storage.

Subsurface Depressurization System piping along wall in warehouse.

Subsurface Depressurization System venting through roof in warehouse.



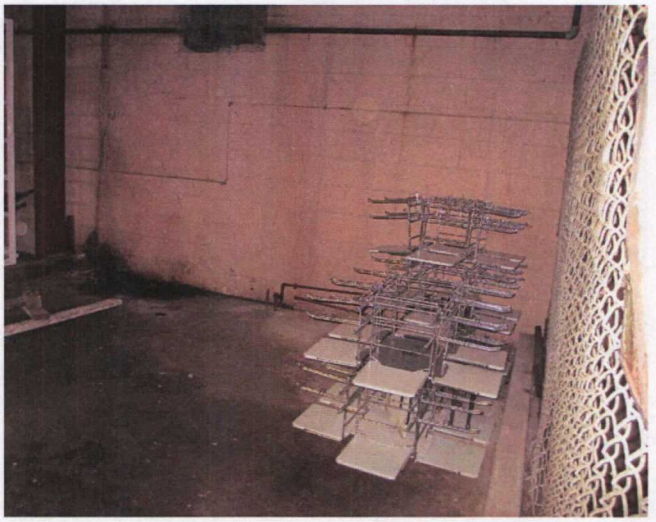
Venting Subsurface Depressurization System on roof of warehouse.

Subsurface Depressurization System venting on roof of warehouse.

View from roof of warehouse looking northeast towards Highway 59.

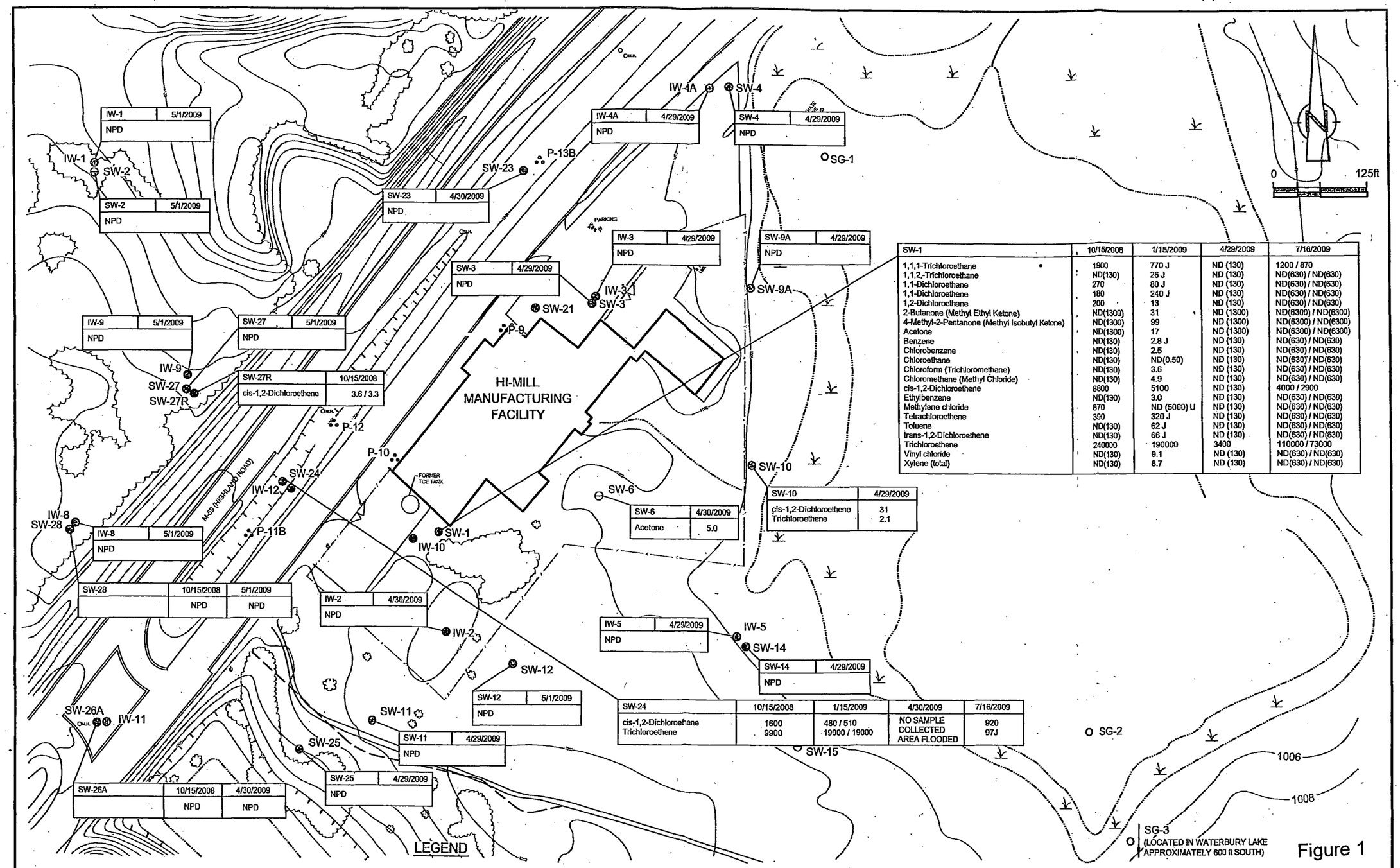
Warehouse and parking lot looking southeast.

Some staining on floor of warehouse.



Appendix E

Figures

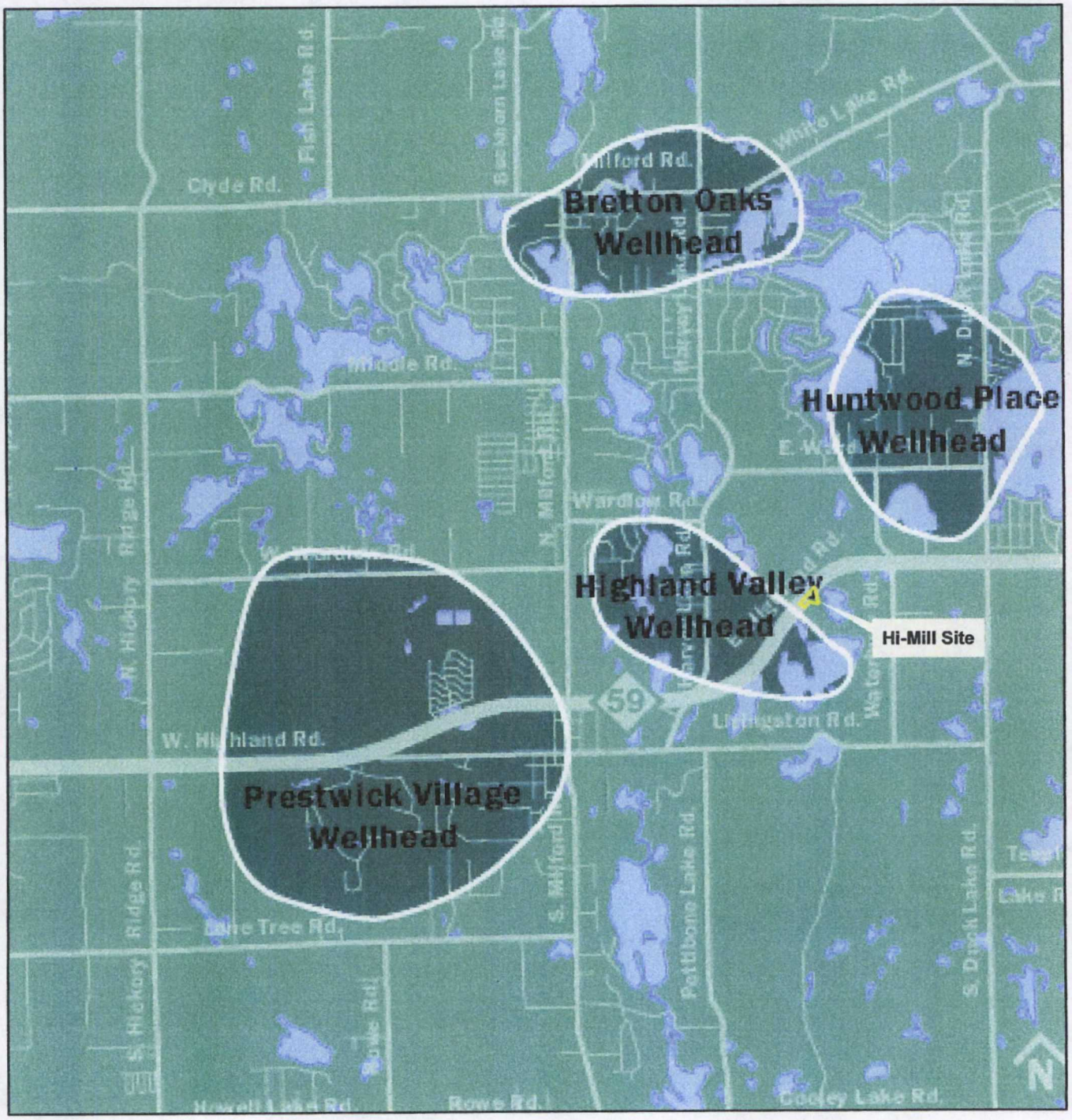


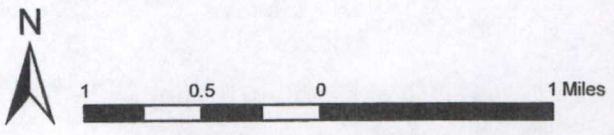
SW-1	10/15/2008	1/15/2009	4/29/2009	7/16/2009
1,1,1-Trichloroethane	1900	770 J	ND (130)	1200 / 870
1,1,2,-Trichloroethane	ND(130)	26 J	ND (130)	ND(630) / ND(630)
1,1-Dichloroethane	270	80 J	ND (130)	ND(630) / ND(630)
1,1-Dichloroethene	180	240 J	ND (130)	ND(630) / ND(630)
1,2-Dichloroethane	200	13	ND (130)	ND(630) / ND(630)
2-Butanone (Methyl Ethyl Ketone)	ND(1300)	31	ND (1300)	ND(6300) / ND(6300)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ND(1300)	99	ND (1300)	ND(6300) / ND(6300)
Acetone	ND(1300)	17	ND (1300)	ND(6300) / ND(6300)
Benzene	ND(130)	2.8 J	ND (130)	ND(630) / ND(630)
Chlorobenzene	ND(130)	2.5	ND (130)	ND(630) / ND(630)
Chloroethane	ND(130)	ND(0.50)	ND (130)	ND(630) / ND(630)
Chloroform (Trichloromethane)	ND(130)	3.6	ND (130)	ND(630) / ND(630)
Chloromethane (Methyl Chloride)	ND(130)	4.9	ND (130)	ND(630) / ND(630)
cis-1,2-Dichloroethene	8800	5100	ND (130)	4000 / 2900
Ethylbenzene	ND(130)	3.0	ND (130)	ND(630) / ND(630)
Methylene chloride	870	ND (5000) U	ND (130)	ND(630) / ND(630)
Tetrachloroethene	390	320 J	ND (130)	ND(630) / ND(630)
Toluene	ND(130)	62 J	ND (130)	ND(630) / ND(630)
trans-1,2-Dichloroethene	ND(130)	66 J	ND (130)	ND(630) / ND(630)
Trichloroethene	240000	190000	3400	110000 / 73000
Vinyl chloride	ND(130)	9.1	ND (130)	ND(630) / ND(630)
Xylene (total)	ND(130)	8.7	ND (130)	ND(630) / ND(630)

Figure 1

SUMMARY OF FOURTEEN-YEAR GROUNDWATER ANALYTICAL DATA
HI-MILL MANUFACTURING COMPANY
Oakland County, Michigan

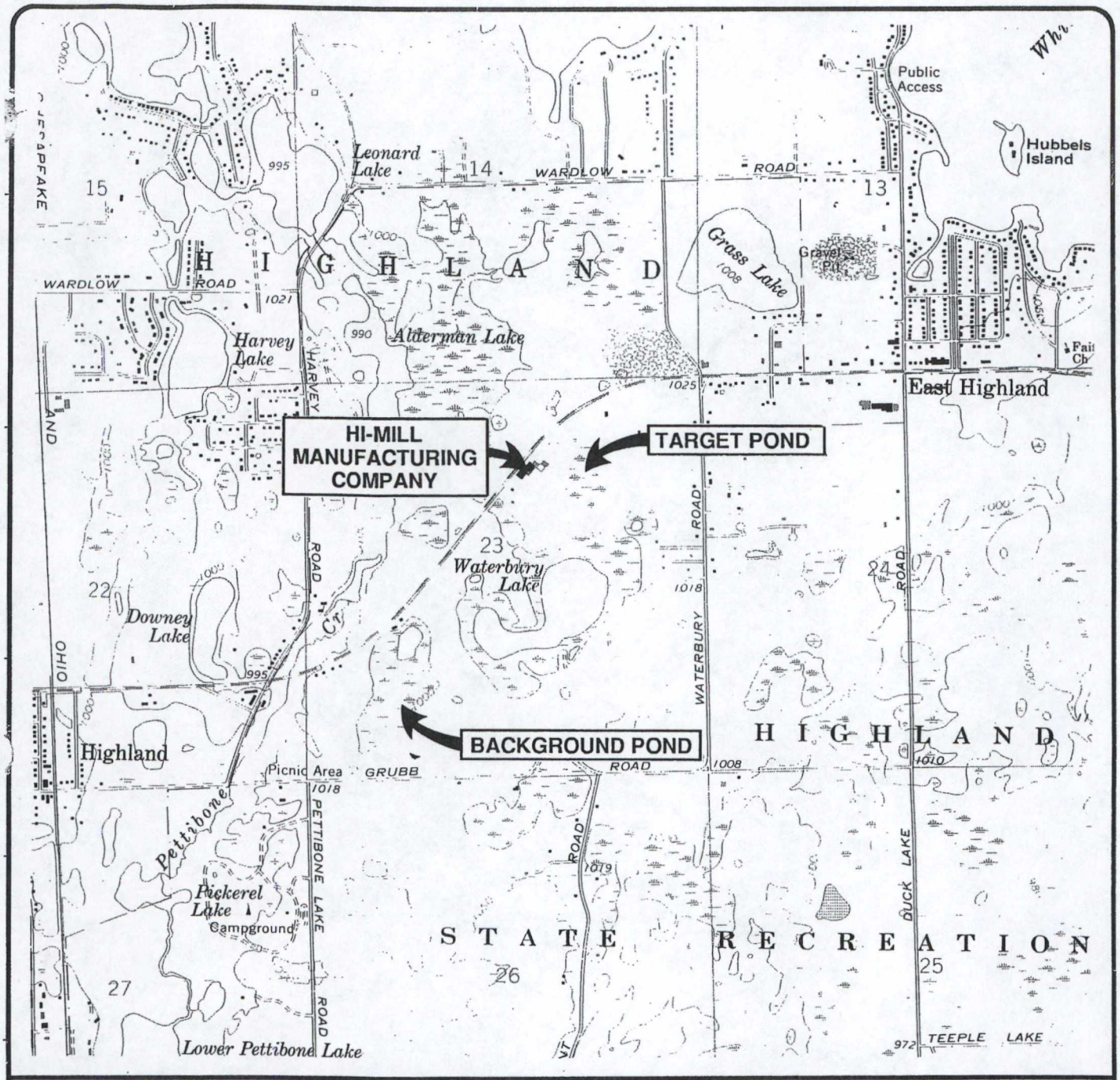
Hi-Mill Manufacturing Site
Wellhead Protection Areas in Highland Township



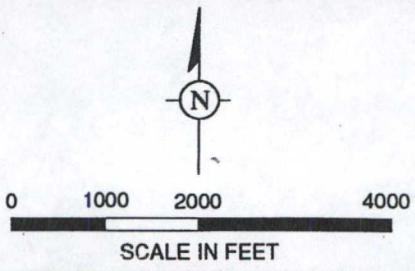


Plot created by Andrea Porter U.S. EPA Region 5 on 9/26/2005

Figure 2



SOURCE: USGS 7.5 Minute Topographic Map, HIGHLAND, MICHIGAN Quadrangle, 1983



GERAGHTY & MILLER, INC.
Environmental Services

SITE LOCATION

HI-MILL MANUFACTURING COM
HIGHLAND, MICHIGAN

Figure 3

Hi-Mill Manufacturing Company Superfund Site, Michigan

1) State

2) Oakland County

3) Hi-Mill Site

Plot created by: Naseer Shafique
U.S. EPA Region 5 on 4/13/2005

GEOS
Groundwater Evaluation and Optimization System

Figure 4